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INSECTA

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13. INSECTA

BY

THE COMMONWEALTH INSTITUTE OF ENTOMOLOGY

FOREWORD

THE attention of readers is directed to the fact that the systematic part of the Record is reserved only for information of purely taxonomic value. References to data on morphology, physiology, bionomics, ecology, distribution and other general problems must be looked for in the Subject Index, where they are arranged by orders under each heading. It is hoped that the classification of headings in the Subject Index will make the information more complete and readily available and render the Record of more value for entomologists working on general problems, without affecting its importance for taxonomists.

Entomological papers written entirely from an economic point of view are omitted, but abstracts of these will be found in the *Review of Applied Entomology*.

Very brief papers, usually those dealing with a single species, are noticed either in the Subject Index or in the systematic part, but do not appear in the list of titles.

The writers of systematic papers are requested to mark new synonyms with the words (*n. syn.*), as otherwise it is impossible to ensure that they will be correctly recorded.

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1.—Current entomological literature. Ent. News, Lancaster, Pa. **62** 1951 pp. 49–57, 87–94, 116–122, 141–150, 168–178, 195–202, 226–235, 252–263, 279–290.

2.—New insect records for the year 1950. Proc. Hawaii. ent. Soc.,Honolulu **14** 1951 p. 341.

3.—Abalos, J. W. & **Wygodzinsky,** P. Las Triatominae argentinas (Reduviidae, Hemiptera). Monogr. Inst. Med. reg. Tucuman no. 2 1951 178 [+3] pp., 318 figs.

4.—Abbott, C. H. A quantitative study of the migration of the painted lady butterfly, *Vanessa cardui* L. Ecology, Lancaster, Pa. **32** 1951 pp. 155–171, 4 figs. [Lep.]

Abd El-Aziz Aly El-Sayed Ghabn *see* Ghabn.

Abdel Malek, A. A. *see* Knight & Abdel Malek.

Abonnenc, E. *see* Floch & Abonnenc.

5.—Abou-nasser, A. Les Aphidiens du Liban. Beyrouth, [Minist. Agric. liban.], 1951 9 pp. multigraph. [Hem.]

6.—Abrahamsen, S. E. Gravehvespen *Crabro lindenius panzeri* v.d. Lind. Redekolonier fundet i Danmark. (With English summary.) Flora og Fauna, Copenhagen **56** 1950 pp. 125–130, 11 figs. [Hym.]

7.—Aczél, M. L. Catálogo de la subfamilia americana Richardiinae (Dipt. Acalypt. Otitidae). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 5–47.

8.—Aczél, M. L. Catálogo de la familia Conopidae (Diptera) de la región neotropical. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950 in Z.R. **87** 1950 No. **13**] pp. 49–84.

9.—Aczél, M. L. Géneros y especies de la tribu Trypetini. I. Dos géneros y tres especies nuevos de la Argentina (Tephritidae, Diptera). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 307–323, 1 pl. 4 figs.

10.—Adamczewski, S. On the systematics and origin of the generic group *Oxyptilus* Zeller (Lep. Alucitidae). Bull. Brit. Mus. (Nat. Hist.), London Ent. **1** 1951 pp. 301–388, 11 pls.

11.—Adamczewski, S. The moths of Warsaw city (Lepidoptera). [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6** 1951 pp. 111–128.

12.—Adamović, Z. Contribution à la connaissance de nos Cicindélides. [In Serbian with French summary.] Bull. Mus. Hist. nat. Belgrade (B) no. 3–4 1950 pp. 293–331. [Col.]

13.—Adamović, Z. La collection des Cerambycides au muséum d'histoire naturelle du pays serbe à Belgrade: 1ère partie: Prionini, Cerambycini. [In Serbian with French summary.] Bull. Mus. Hist. nat. Belgrade (B) no. 3–4 1950 pp. 343–357.

14.—Adamovič, J. Contribution à la connaissance de l'espèce *Purpuricenus budensis* Gotz. (Cerambycidae Col.). [In Czech with French summary.] God. biol. Inst. Sarajevu **2** (1949) 1950 pp. 115–119, 1 fig.

Agacino *see* Morales Agacino.

15.—Agenjo, R. *Bryophaga delicatella* (Rbl.), bona sp., *B. desidella* (Ld.), bona sp., y descripción de una especie de este género y otra subespecie de *B. acanthella* (God.) (Lep. Scythr.). Eos, Madrid **27** 1951 pp. 265–275, 1 pl.

16.—Agenjo, R. Dos nuevos Cucullinae españoles descubiertos en Burgos (Lep. Agrot.). Eos, Madrid **27** 1951 pp. 404–424, 2 pls. 2 figs.

17.—Agrell, I. The diapause problem. Année biol., Paris **55** 1951 pp. 287–295, 3 figs.

18.—Aguayo, C. G. Lámparas animadas. Bol. Hist. nat. Soc. " Felipe Poey ", Havana **2** 1951 pp. 61–80, 16 figs.

Alam *see* Mashhood Alam.

19.—Alayo, D. Notas sobre las especies cubanas de *Euremas* del grupo *elathea-palmira* (Lepidoptera Pieridae). Bol. Hist. nat. Soc. " Felipe Poey ", Havana **2** 1951 pp. 7–8.

20.—Alberti, B. Bemerkenswerte Häufung eines Zwittervorkommens. Ent. Z., Frankfurt a. M. **60** 1950 pp. 81–82. [Lep.]

21.—Alberti, B. Freiland- und Zuchtbeobachtungen an *Arctia hebe* L. (Lep. Arctiidae). Ent. Z., Frankfurt a. M. **61** 1951 pp. 113–115, 123–126.

22.—Alberti, B. Ueber das Vorkommen von *Laelia coenosa* Hbn. am Müritzsee in Mecklenburg (Lymantriidae). Z. Lepid., Krefeld **1** 1951 pp. 123–126.

23.—Alberti, B. Zur Kenntnis des Genus *Illiberis* Walk. (Zygaenidae). 2. Mitteilung. Z. Lepid., Krefeld **1** 1951 pp. 131–146, 2 pls.

24.—Albuquerque, D. O. Primeiras notas sôbre alguns Muscidae de Macquart, da coleção do Museu de Paris. Bol. Mus. nac. Rio de Janeiro (N.S.) Zool. no. 98 1950 7 pp. 3 pls. [Dipt.]

25.—Albuquerque, D. O. Sôbre alguns tipos de Macquart (Diptera Muscidae), existentes no Museu nacional de História natural de Paris (3.ª nota). Bol. Mus. nac. Rio de Janeiro (N.S.) Zool. no. 99 1950 4 pp., 1 pl.

26.—Albuquerque, D. O. Quinta nota sôbre tipos de Macquart (Diptera-Muscidae), existentes no Museu nacional de História natural de Paris e descrição de uma espécie nova, proveniente do Chile. Bol. Mus. nac. Rio de Janeiro (N.S.) Zool. no. 105 1951 17 pp., 28 figs.

27.—Albuquerque, D. O. Sôbre um gênero e duas espécies novas de Phaoninae neotropical (Diptera, Muscidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 53–57, 18 figs.

28.—Albuquerque, R. M. & **Serra,** J. A. Caracteres da heterocromatina em cromosomas gigantes de Dípteros. Mem. Estud. Mus. zool. Univ. Coimbra no. 209 1951 9 pp., 1 pl.

Alcaide *see* Pardo Alcaide.

29.—[Aleĭnikova, M. M. & **Utrobina,** N. M.] Contribution to the question of the rôle of Amphibia in the biocenoses of the field-protecting forest plantations. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 391–396.

30.—Alexander, C. P. New or insufficiently-known crane-flies from Chile (Family Tipulidae, Order Diptera) Part III. Agric. técn., Santiago de Chile **11** 1951 pp. 5–18, 1 pl.

31.—Alexander, C. P. New or little-known Tipulidae (Diptera).—LXXXIX–XCI. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 576–606, 882–908, 1072–1102.

32.—Alexander, C. P. New or insufficiently-known crane-flies from the Nearctic region (Diptera, Tipulidae) Part XIV. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 85–91.

33.—Alexander, C. P. Records and descriptions of Neotropical crane-flies (Tipulidae, Diptera), XXV. J. New York ent. Soc. **59** 1951 pp. 99–110.

34.—Alexander, C. P. New or little-known crane-flies from Madagascar (Tipuloidea, Diptera). Part I. Mém. Inst. Sci. Madagascar, Tananarive **5A** 1951 pp. 33–63, 25 figs.

35.—Alexander, C. P. New or little-known Tipulidae from the Andes Mountains (Diptera). Rev. chil. Ent., Santiago **1** 1951 pp. 5–14, 6 figs.

36.—Alexander, C. P. Notes on the tropical American species of the genus *Tipula* Linnaeus (Tipulidae, Diptera). Part IV. Rev. Ent., Rio de Janeiro **22** 1951 pp. 265–314, 24 figs.

37.—Alexander, C. P. New or little-known Tipulidae from New Guinea (Tipulidae, Diptera) Part I. Treubia, Bogor **21** 1951 pp. 1–9, 8 figs.

38.—Alexander, G. The occurrence of Orthoptera at high altitudes, with special reference to Colorado Acrididae. Ecology, Lancaster, Pa. **32** 1951 pp. 104–112.

39.—Alfken, J. D. Systematisches Verzeichnis der Netzflügler (Mecoptera, Megaloptera und Neuroptera) von Nordwestdeutschland. Abh. naturw. Ver. Bremen **31** 1939 pp. 515–520.

40.—Alfken, J. D. Die Insekten des Naturschutzparkes der Lüneburger Heide. I. Die Bienen (Apidae). Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 750–762, 1 fldg. map. [Hym.]

41.—Alfken, J. D. Zwei neue deutsche *Andrena*-Arten. Mitt. ent. Ver. Bremen **26** 1938 [? 1939] pp. 4–6. [Hym.]

42.—Alfken, J. D. Die Bienenfauna von Bremen. Mitt. ent. Ver. Bremen **26** 1938 [? 1939] pp. 6–30. [Hym.]

43.—Alibert, H. Les insectes vivant sur les cacaoyers en Afrique occidentale. Mém. Inst. franç. Afr. noire, Dakar no. 15 1951 174 pp., 7 pls. 210 figs.

44.—Allegret, P. Influence de la rétention expérimentale de la soie sur la métamorphose de *Bombyx mori* (L.). C.R. Acad. Sci., Paris **232** 1951 pp. 268–270. [Lep.]

45.—Allegret, P. Retard de la nymphose chez *Galleria mellonella* L. après la sécrétion du cocon. Influence de l'alimentation. C.R. Acad. Sci., Paris **233** 1951 pp. 441–443. [Lep.]

Allen, W. W. *see* Smith, Bryan & Allen.

d'Almeida *see* Ferreira d'Almeida.

Alonso *see* Gutiérrez Alonso.

Alves *see* Gomes Alves.

Amaral, L. de G. *see* Gamboa Amaral.

46.—Amsel, H. G. Die Microlepidopteren der Brandt'schen Iran-Ausbeute. 3. Teil. Ark. Zool., Stockholm (2) **1** 1951 no. 36 pp. 525–563, 87 figs.

47.—Amsel, H. G. Neue Microlepidopteren aus Marocco, Malta und dem Libanon. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 175–181, 9 figs.

48.—Amsel, H. G. Eine neue maltesische *Homoeosoma*-Art (Lepidoptera : Pyralidae). Mitt. münchn. ent. Ges., Munich **41** 1951 pp. 248–250, 2 figs.

49.—Amsel, H. G. Una raccolta di Microlepidotteri della Dalmazia meridionale. Redia, Florence **36** 1951 pp. 411–422, 2 figs.

50.—Amsel, H. G. Ueber die Variabilität der männlichen Genitalarmatur bei einigen *Crambus*-Arten (Pyralidae). Z. Lepid., Krefeld **1** 1951 pp. 159–163, 1 pl.

Amy, R. L. *see* Dent & Amy.

51.—Ananthakrishnan, T.N. Variations in the mouth parts of some Thripidae (Thysanoptera-Terebrantia). Indian J. Ent., New Delhi **12** (1950) 1951 pp. 237–239.

52.—Andersen, F. S. Larval and imaginal forms in *Chironomus* s.s. Ent. Tidskr., Stockholm **72** 1951 pp. 209–210. [Dipt.]

53.—Andersen, K. T. Temperatur und Feuchtigkeit als Faktoren der Lebensdauer überwinternder Larven des Zünslers *Pyrausta nubilalis* Hübn. und Thigmotaxis, Phototaxis und Hygrophilie als ökologische Faktoren. Z. angew. Ent., Berlin **33** 1951 pp. 162–168, 3 figs. [Lep.]

Andrade, R. M. de *see* Oliveira, Andrade & Nascimento.

54.—Ansari, M. Atiqur Rahman. Mallophaga (Amblycera) infesting birds in the Panjab (India). Proc. nat. Inst. Sci. India, Delhi **17** 1951 pp. 127–204, 26 figs. 1 pl.

55.—Anscombe, F. J. The statistical analysis of insect counts based on the negative binomial distribution. Biometrics, Washington, D.C. **5** 1949 pp. 165–173.

56.—Antoine, M. Notes d'entomologie marocaine. Bull. Soc. Sci. nat. Maroc, Rabat **29** (1949) 1951 pp. 311–321; **30** (1950) 1951 pp. 87–101, 4 figs. [Col.]

57.—Antoine, M. Sur le démembrement du genre *Cicindela*. Rev. franç. Ent., Paris **18** 1951 pp. 88–91. [Col.]

58.—Antram, C. B. The collecting and preservation of butterflies and moths. With practical hints for collecting in the field. Lymington, C. T. King 1951 107 pp. 6 pls. 10 figs. [Lep.]

Arakawa, K. Y. *see* Ryckman & Arakawa.

59.—Arcangeli, A. Teoria sulla origine del gonocorismo del'ermafroditismo primario e sulla origine dal gonocorismo della partennogenesi, dell'ermafroditismo secondaria e della intersessulità. Boll. Ist. Mus. Zool. Torino **2** 1950 pp. 237–557.

60.—Archimowitsch, A. von. Función de los insetos en el transporte del polen y polinización de la remolacha. Bol. Soc. esp. Hist. nat., Madrid **48** 1950 Secc. Biol. pp. 279–309, 4 figs.

61.—Ardö, P. Anteckningar om den svenska culicidfaunan. Opusc. ent., Lund **16** 1951 pp. 77–79. [Dipt.]

62.—Argumosa y Valdés, J. A. de. Himenópteros e hipersensibilidad. Alergologia, Madrid **1** 1951 pp. 77–92, 1 fig. [Not seen.]

63.—Armstrong, G., **Bradbury,** F. R. & **Standen,** H. The penetration of the insect cuticle by isomers of benzene hexachloride. Ann. appl. Biol., London **38** 1951 pp. 555–566, 1 fig.

Arnason, A. P. *see* Fredeen, Rempel & Arnason; Fuller, Spinks, Arnason & McDonald.

64.—Arnason, T. J., **Irwin,** R. L. & **Spinks,** J. W. T. P^{32}-induced lethal mutations in *Drosophila*. Canad. J. Zool., Ottawa **29** 1951 pp. 234–239, 1 fig. [Dipt.]

65.—Arnaud, P. H. A study of the genus *Paradejeania* Brauer and Bergenstamm (Diptera: Tachinidae or Larvaevoridae). Canad. Ent., Ottawa **83** 1951 pp. 317–329, 9 figs.

66.—Arnaud, P. H. & **Quate,** L. W. Note on the swarming of *Brachymyrmex* sp. (Hymenoptera: Formicidae). Pan-Pacif. Ent., San Francisco **27** 1951 p. 171.

67.—Arnett, jr., R. H. A revision of the Nearctic Oedemeridae (Coleoptera). Amer. Midl. Nat., Notre Dame **45** 1951 pp. 257–391, 14 pls.

68.—Arnett, jr., R. H. A preliminary key to the Neotropical genera of Oedemeridae. Coleopt. Bull., Washington, D.C. **5** 1951 pp. 57–59.

Arnold, jr., F.T. *see* Weathersbee, Arnold & Askey.

69.—Arnold, G. Sphecidae and Pompilidae (Hymenoptera) collected by Mr. K. M. Guichard in West Africa and Ethiopia, 1941–1948. Bull. Brit. Mus. (Nat. Hist.), London Ent. **2** 1951 pp. 95–183, 2 pls. 65 figs.

70.—Arnold, G. The genus *Hagensia* Forel (Formicidae). J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 53–56, 1 fig. [Hym.]

71.—[Arnol'di, K. V.] *Eurygaster integriceps* dans la nature, en Asie centrale; moments écologiques et biocénologiques de sa biologie. [In Russian; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 136–269, 3 figs., 35 pls. [Hem.]

72.—[Arnol'di, K. V. & others.] Key to insects injuring trees and shrubs of shelterbelts. [In Russian.] Opred. Faune SSSR, Moscow **36** 1950 441 pp., 647 figs.

73.—Arrow, G. J. Horned beetles. A study of the fantastic in nature. Edited by W. D. Hincks. The Hague, W. Junk 1951 [7+] 154 pp. 15 pls. [Col.]

74.—[Arsen'ev, A. F. & **Bromleĭ,** N. V.] The chemical composition and buffer capacity of the intestinal juice of the larvae of the oak and mulberry silkworms. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **16** 1951 pt. 2 pp. 25–31. [Lep.]

75.—Arvy, L. & Gabe, M. Données histiophysiologiques sur les formations endocrines rétro-cérébrales chez les Ecdyonuridae (Ephéméroptères). Bull. Soc. zool. France, Paris **75** (1950) 1951 pp. 267–285, 1 pl. 3 figs.

76.—Asahina, S. New dragonflies from the north-eastern Asia. Kontyû, Tokyo **19** 1951 pp. 15–22, 3 pls. [Odon.]

77.—Ash, J. Some records of *Ornithomya* spp. (Dipt., Hippoboscidae) from Öland in 1950. Ent. Tidskr., Stockholm **72** 1951 pp. 22–24.

Askey, jr., M. M. *see* Weathersbee, Arnold & Askey.

78.—d'Assis-Fonseca, E. C. M. *Salmacia divisa* Mg. and *S. ornata* Mg. (Dipt., Larvaevoridae). J. Soc. Brit. Ent., Bournemouth **4** 1951 pp. 36–37.

79.—Astfäller, B. Rückgang der Südtiroler Falterfauna ? Ent. Z., Frankfurt a. M. **61** 1951 pp. 41–42. [Lep.]

80.—Atanassou, N. Neue Arten Hymenoptera aus den Familien Sapygidae, Scoliidae, Tiphiidae, Mutillidae, Masaridae und Psammocharidae (Pompilidae) für die Fauna Bulgariens und der Balkanhalbinsel. [In Bulgarian with German summary.] Bull. Inst. zool. Acad. bulg. Sci., Sofia **1** 1951 pp. 286–297.

Atiqur Rahman Ansari *see* Ansari.

81.—Aubert, J. Plécoptères helvétiques. Compléments faunistiques. Bull. Soc. vaud. Sci. nat., Lausanne **65** 1951 pp. 73–77.

82.—Aubert, J. *Leuctra meridionalis* n. sp., un Plécoptère nouveau du versant sud des Alpes. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 181–182, 1 fig.

83.—Aubert, J. Plécoptères helvétiques ; description de larves nouvelles. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 279–298, 88 figs.

Auerbach, S. *see* Park, Auerbach & Corley.

84.—Autrum, H. Zur Analyse des zeitlichen Auflösungsvermögens des Insektenauges. Nachr. Akad. Wiss. Göttingen math.-phys. Kl. biol.-phys.-chem. Abt. **1948** 1948 pp. 13–18, 4 figs.

85.—Avinoff, A. An analysis of color and pattern in butterflies of the Asiatic genus *Karanasa*. Ann. Carnegie Mus., Pittsburgh **31** 1950 pp. 321–330, 2 pls. (1 col.) [Lep.]

86.—Avinoff, A. & Sweadner, W. R. The *Karanasa* butterflies. A study in evolution. Ann. Carnegie Mus., Pittsburgh **32** 1951 pp. 1–217, 17 pls. (4 col.) 17 figs. 1 diagr. [Lep.]

87.—Babers, F. H. & Pratt, J. J. A comparison of the cholinesterase in the heads of the house fly, the cockroach, and the honey bee. Physiol. Zool., Chicago **24** 1951 pp. 127–131, 4 figs. [Dipt., Orth., Hym.]

88.—Bacelar, A. Macrolepidópteros (Rhopalocera) da Guiné Portuguese. An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 71–104. [Lep.]

89.—Bacelar, A. Macrolepidópteros de Moçambique (Papilionidae, Pieridae, Danaidae, Satyridae e Nymphalidae). An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 103–128.

90.—Bagenal, T. B. A note on the papers of Elton and Williams on the generic relations of species in small ecological communities. J. Anim. Ecol., London **20** 1951 pp. 242–245.

91.—Bailey, F. M. Notes on butterflies from Nepal. J. Bombay nat. Hist. Soc. **50** 1951 pp. 64–87, 2 pls., 281–298. [Lep.]

92.—Bailey, N. S. The Tingoidea of New England and their biology. Ent. Amer., Lancaster, Pa. **31** 1951 pp. 1–140, 6 figs. [Hem.]

93.—Bailey, N. S. An Asiatic Tingid new to North America (Heteroptera). Psyche, Cambridge, Mass. **57** (1950) 1951 pp. 143–145. [Hem.]

94.—Bailey, S. F. The genus *Aeolothrips* Haliday in North America. Hilgardia, Berkeley, Cal. **21** 1951 pp. 43–80, 8 pls. [Thysanopt.]

95.—Bailey, S. F. A homonym in the genus *Thrips* Linné (Thysanoptera : Thripidae). Pan-Pacif. Ent., San Francisco **27** 1951 p. 19.

96.—Bair, T. D. Experimental determination of the auto-selected temperature in the chicken louse, *Cuclotogaster heterographus* (Nitzsch). Ecology, Lancaster, Pa. **31** 1950 pp. 474–477, 1 fig. [Malloph.]

97.—Balachowsky, A. S. La lutte contre les insectes. Principes–methodes–applications. Paris, Biblioth. sci. 1951 380 pp. 57 figs. 8 pls.

98.—Balachowsky, A. Les cochenilles de France, d'Europe, du nord de l'Afrique et du bassin méditerranéen. VI. Monographie des Coccoidea Diaspidinae (troisième partie) Aspidiotini (fin). Actualités sci. indust., Paris no. 1127 1951 162 pp. 40 pls. [Hem.]

99.—Balachowsky, A. S. Notes sur quelques Thysanoptera récoltés dans le Tassili N'Ajjers (Sahara central) et dans le Sahara marocain océanique. Rev. Path. vég. Ent. agric., Paris **30** 1951 pp. 159–160.

100.—Balachowsky, A. S. Sur un Pseudococcini (Hom. Coccoidea) nouveau vivant sur *Ficus salicifolius* Vahl. dans le Tassili N'Ajjers (Sahara central). Rev. Path. vég. Ent. agric., Paris **30** 1951 pp. 197–202, 1 pl. 1 fig.

101.—Balachowsky, A. S. & **Kaussari,** M. Coccoidea-Diaspinae nouveaux du Sud-Est de l'Iran (Hemiptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 1–15, 4 pls.

102.—Balát, F. Deux notices sur les Mallophaga de Moravie. [In Czech with French summary.] Ent. Listy, Brno **13** (1950) 1951 pp. 109–114, 4 figs.

103.—Balazuc, J., **Dresco,** E., **Henrot,** H. & **Nègre,** J. Biologie des carrières souterraines de la région parisienne. Vie et Milieu, Paris **2** 1951 pp. 301–334.

104.—Balazuc, J., **Miré,** P. de, **Sigwalt,** J. & **Théodoridès,** J. Trois compagnes biospéléologiques dans Le Bas-Vivarais (avril 1949-décembre 1949–juin-juillet-août 1950). Bull. mens. Soc. linn. Lyon **20** 1951 pp. 187–192, 1 map, 215–220, 238–242.

105.—Balcells R., E. Datos para el estudio del ciclo biológico de *Zicrona coerulea* L. Publ. Inst. Biol. apl., Barcelona **8** 1951 pp. 127–150, 1 map. 2 pls. [Hem.]

106.—Balfour-Browne, F. British water beetles, Volume II. London, Ray Soc. 1950 xx & 394 pp. 1 pl. 90 figs. 56 maps. [Col.]

107.—Balfour-Browne, F. The aquatic Coleoptera of Ireland with some remarks on the causes of their distribution. Ent. Gaz., London **2** 1951 pp. 1–52, 13 figs.

108.—Balfour-Browne, F. Additions to the list of the aquatic Coleoptera of Ireland. Ent. mon. Mag., London **87** 1951 pp. 260–264, 2 figs.

109.—Balfour-Browne, F. The aquatic Coleoptera of Wood Walton Fen, with some comparisons with Wicken Fen and some other East Anglian Fens. Trans. Soc. Br. Ent., Bournemouth **10** 1951 pp. 235–268.

110.—Balfour-Browne, J. Expedition to South-West Arabia 1937–8. Coleoptera : Haliplidae, Dytiscidae, Gyrinidae, Hydraenidae, Hydrophilidae. London, Brit. Mus. (Nat. Hist.) **1** 1951 pp. 179–220, 2 pls. 10 figs.

111.—Ball, G. E. A note concerning the correct application of the generic name *Helluomorpha* Castelnau, 1834, and proposal of a new name. (Coleoptera : Carabidae : Helluonini). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 135–136.

112.—Ball, H. J. & **Beck,** S.D. The role of the circulatory and nervous systems in the toxic action of parathion. J. econ. Ent., Menasha **44** 1951 pp. 558–564.

113.—Balthasar, V. Les nouvelles Chrysidides de l'Europe centrale et méridionale. Opuscula hymenopterologica VIII. Acta ent. Mus. nat. Pragae **26** 1949 no. 363, 5 pp.

114.—Balthasar, V. Les espèces de genre *Heptaulacus* Muls. avec la description d'un nouveau genre et d'une espèce nouvelle. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 145–154. [Col.]

115.—Balthasar, V. Scarabaeidae laparostictae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 337–358 [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 322–344].

116.—Banks, N. Notes on some New England Phryganeidae (Trichoptera). Psyche, Cambridge, Mass. **58** 1951 pp. 20–22, 1 pl.

117.—Bänninger, M. Die Verbreitung der *Nebria* (*Nebriola*) *fontinalis* Daniel mit ssp. *rhaetica* Daniel. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 97–100, 1 fldg. map. [Col.]

118.—Barber, H. S. *Hispella* a synonym of *Hispa* Linnaeus, and a new *Dactylispa* from China (Coleoptera : Chrysomelidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 17–19, 1 fig.

119.—Barber, H. S. North American fireflies of the genus *Photuris*. With preface and notes by F. A. McDermott. Smithson. misc. Coll., Washington **117** 1951 no. 1, vi & 58 pp. 1 fig. [Col.]

120.—Barbosa, A. J. S. Estudo comparativo da biologia dos manchadores da fibra em Moçambique e das medidas para o seu control. Portugaliae Acta biol., Lisbon **3** 1950 pp. 1–24, 5 pls., 14 figs.

121.—Barbosa, A. J. S. Estudo da biologia dos percevejos da semente do algodão e dos prejuizos causados pelos mesmos. Rev. Fac. Cienc. Univ. Lisboá (Cienc. nat.) **1** 1950 pp. 117–132, 2 pls. [Hem.]

122.—Barendrecht, G. Three different agglomerations of blood cells in a *Caliroa limacina* larva. Bijdr. Dierk., Leiden **28** 1949 pp. 20–25, 4 figs. [Hym.]

123.—Barigozzi, C. The influence of the y-chromosome on quantitative characters of *D. melanogaster*. Heredity, London **5** 1951 pp. 415–432. [Dipt.]

124.—Barigozzi, C. & **Pasquale,** A. di. L'azione del cromosoma y sulla frequenza dei peli alari e delle irregolarità della faccettatura dell' occhio in *D. melanogaster*. Sci. Genet., Torino **4** 1951 pp. 52–56, 3 figs. [Dipt.]

125.—Barlet, J. Morphologie du thorax de *Lepisma saccharina* L. (Aptérygote Thysanoure). I. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 253–271, 1 fig.

Barlet, J. *see* Carpentier & Barlet.

126.—Barnes, H. F. Gall midges of economic importance. Volume V. Gall midges of trees. With a foreword by R. N. Chrystal. London, Crosby Lockwood & Son Ltd. 1951 270 pp. 8 pls. [Dipt.]

127.—Barnes, H. F. A new gall midge (Dipt., Cecidomyidae) predaceous on the flour mite, *Tyroglyphus farinae* (Deg.). Bull. ent. Res., London **42** 1951 pp. 565–566.

128.—Barnhart, C. S. A new silverfish of economic importance found in the United States (Thysanura : Lepismatidae). Ohio J. Sci., Columbus **51** 1951 pp. 184–186, 1 pl.

129.—Barr, A. R. & **Kartman,** L. Biometrical notes on the hybridization of *Culex pipiens* and *C. quinquefasciatus* Say. J. Parasit., New York **37** 1951 pp. 419–420. [Dipt.]

130.—Barrera, A. Notas sobre Sifonápteros II.—Descripción de *Anomiopsyllus traubi* nov. sp. (Siph. Hystrichops.). Ciencia, Mexico **11** 1951 pp. 197–200, 5 figs.

131.—Barrett, C. & **Burns,** A. N. Butterflies of Australia and New Guinea. Melbourne, N. H. Seward Pty. Ltd. 1951 x & 187 pp. 18 pls. (8 col.) 14 figs. [Lep.]

Barretto *see* Pereira Barretto.

132.—Barth, R. O órgão odorífero de um macho do gênero *Eriopyga* (Lepidoptera, Noctuidae, Hadeninae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 599–627, 14 figs.

133.—Barth, R. Das Duftorgan von *Pantherodes pardalaria* (Hbn., 1823) (Geometridae, Geometrinae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 105–118, 12 figs.

134.—Bartlett, B. R. A new method for rearing *Drosophila* and a technique for testing insecticides with this insect. J. econ. Ent., Menasha **44** 1951 p. 621. [Dipt.]

135.—Bartoloni, P. La *Phthorimaea operculella* Zeller (Lep. Gelechiidae) in Italia (note sulla morfologia, biologia e mezzi di lotta). Redia, Florence **36** 1951 pp. 301–379, 26 figs.

136.—Basilewsky, P. Révision générale des Harpalinae d'Afrique et de Madagascar (Coleoptera Carabidae). Ann. Mus. Congo belge, Brussels (Sér. 8°) Sci. zool. **9** 1951 333 pp. 6 pls. 191 figs.

137.—Basilewsky, P. Descriptions préliminaires des Coléoptères Carabiques nouveaux recueillis par M. Maxime Lamotte en Haute-Guinée. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 272–284.

138.—Basilewsky, P. Contribution à l'étude des Coléoptères Carabidae de l'Afrique occidentale. III. Carabiques recueillis aux îles du Cap Vert par M. J. Cadenat. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1107–1109.

139.—Basilewsky, P. Résultats de la Mission Zoologique Suisse au Cameroun. Coléoptères Carabidae. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 pp. 195–208.

140.—Basilewsky, P. Descriptions of some new Callistinae (Coleoptera, Carabidae) from East Africa. Psyche, Cambridge, Mass. **58** 1951 pp. 42–46, 2 figs.

141.—Basilewsky, P. Coleoptera. Carabidae. Rés. sci. Explor. hydrobiol. Lac Tanganyika (1946–47), Brussels **3** 1951 no. 2 pp. 11–19.

142.—Basilewsky, P. Descriptions d'Anchoméniens nouveaux du Muséum national d'Histoire naturelle de Paris (Col. Carabidae). Rev. franç. Ent., Paris **18** 1951 pp. 31–35.

143.—Basilewsky, P. Descriptions préliminaires des Carabidae nouveaux recueillis par le Dr A. Monard au Cameroun. Rev. suisse Zool., Geneva **58** 1951 pp. 383–386. [Col.]

144.—Basilewsky, P. *Leleupidia luvubuana*, nov. gen. et nov. sp. (Col. Carabidae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 175–179, 6 figs.

145.—Basilewsky, P. Description d'un Scaritide aveugle du Kivu (Col. Carabidae Scaritinae). With an appendix by R. Jeannel: "Considérations zoo-géographiques" p. 270. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 267–269, 4 figs.

146.—Basilewsky, P. Coléoptères Carabidae africains nouveaux. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 281–294, 6 figs.

147.—Basilewsky, P. Sur le genre *Leleupidia* Basilewsky (Col. Carabidae). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 19–23, 10 figs.

148.—Basilewsky, P. Carabiques anophtalmes ou microphtalmes nouveaux du Kahuzi (Col. Carabidae). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 84–89, 2 figs.

149.—Basilewsky, P. Quelques *Reicheia* nouvelles de l'Est du Congo belge (Col. Carabidae Scaritinae). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 134–141.

Basilewsky, P. *see* Burgeon & Basilewsky.

150.—Basso y Lacha, R. Contribución al estudio de los Typhlocybidae. Bol. Soc. esp. Hist. nat., Madrid **46** (1948) 1949 pp. 685–697, 10 figs. [Hem.]

151.—Bateman, A. J. The taxonomic discrimination of bees. Heredity, London **5** 1951 pp. 271–278. [Hym.]

152.—Batra, H. N. & **Renjhen,** P. L. Preliminary observations on the biology of the Buprestid borer (*Sphenoptera lafertei* Thomson) of certain fruit trees in North-West India. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 159–165, 4 figs. [Col.]

153.—Battaglia, B. & **Sarà,** M. Sulla degenerazione di cellule nella spermatogenesi di alcuni insetti. Sci. genet., Torino **4** 1951 pp. 36–40.

154.—Baudoin, R. Le réflexe d'hydranapheuxis chez les insectes du bord des eaux. Bull. biol. Fr. Belg., Paris **85** 1951 pp. 88–104, 6 figs.

155.—Baudyš, E. The Coccoideocecidia of Czechoslovakia. [In Czech with English summary.] Sborn. Kl. přír. Brné **29** 1951 pp. 81–89. [Hem.]

Baumann, C. A. *see* Noland & Baumann.

156.—Baumgartner, R. Résultats de mes dernières recherches sur les laboulbéniales (champignons sur insectes vivants). Mitt. naturf. Ges. Bern (N.F.) **8** 1951 pp. xxx–xxxiii.

157.—Beall, G. A co-ordinated study on the migration of the monarch butterfly : a plea for information from local naturalists. Lepidopt. News, Connecticut **5** 1951 pp. 37–40, 3 figs. [Lep.]

158.—Beament, J. W. L. Wax secretion in insects. Nature, London **167** 1951 pp. 652–653.

159.—Beamer, R. H. A new genus and two new species of Delphacine Fulgorids (Homoptera, Fulgoridae, Delphacinae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 198–200, 2 figs.

160.—Beamer, R. H. Some species of *Delphacodes*, new and old (Homoptera–Fulgoridae–Delphacinae). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 11–15, 1 pl.

161.—Beamer, R. H. A rare wing deformity in Delphacine Fulgorids (Homoptera – Fulgoridae – Delphacinae). J. Kansas ent. Soc., Manhattan **24** 1951 p. 55, 1 fig.

162.—Beamer, R. H. A review of the genus *Kelisia* in America north of Mexico with four new species (Homoptera – Fulgoridae – Delphacinae). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 117–121, 1 pl.

163.—Beard, R. L. Chemical activity ratios in relation to species-specificity. J. econ. Ent., Menasha **44** 1951 pp. 469–471, 1 fig.

164.—Beatty, III, G. H. Odonate bionomics : I. Notes on the food of dragonflies. I. Odonata vs. ants and bees. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 29–38.

165.—Beaumont, J. de. Sphecidae de l'Institut d'Entomologie de l'Université de Bologne I. Nyssoninae. Boll. Ist. Ent. Bologna **18** 1951 pp. 305–349, 17 figs. [Hym.]

166.—Beaumont, J. de. Hyménoptères des environs de Neuchâtel. Première partie. Bull. Soc. neuchâtel. Sci. nat. (3) **74** 1951 pp. 29–39, 1 map.

167.—Beaumont, J. de. Hyménoptères récoltés par une mission suisse au Maroc (1947). Introduction. Sphecidae. Bull. Soc. Sci. nat. Maroc, Rabat **29** (1949) 1951 pp. 253–258, 1 map, 259–284, 20 figs.

168.—Beaumont, J. de. Contribution à l'étude des *Cerceris* nordafricains. Eos, Madrid **27** 1951 pp. 299–408, 79 figs. [Hym.]

169.—Beaumont, J. de. Qu'est-ce que le genre *Pseudoscolia* Radoszkowski ? (Hym. Sphecid.) Mitt. schweiz. ent. Ges., Berne **24** 1951 p. 112.

170.—Beaumont, J. de. Synonymies de quelques *Cerceris*. 2. (Hym. Sphecid.) Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 175–180.

171.—Beaumont, J. de. Les espèces européennes du genre *Philanthus* (Hym. Specid.). Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 299–315, 20 figs.

172.—Beaumont, J. de. Synonymie de quelques espèces de Sphecidae (Hym.) 3. Mitt. schweiz. ent. Ges., Berne **24** 1951 p. 316.

173.—Bechyné, J. Contribution à la connaissance des Eumolpides malgaches. Bull. Soc. linn. Lyon **20** 1951 pp. 91–94. [Col.]

174.—Bechyné, J. Nouveaux Eumolpides de Madagascar (Col. Phytophaga). Bull. Soc. linn. Lyon **20** 1951 pp. 195–198.

175.—Bechyné, J. Liste provisoire des Eumolpides de Bolivie et observations diverses sur les espèces de l'Amérique du Sud (Col. Phytophaga). Ent. Arb., Munich **2** 1951 pp. 227–352, 1 pl. 1 fig.

176.—Bechyné, J. Nuovi Eumolpidi sud-americani. Mem. Mus. Stor. nat. Verona **2** (1949–50) [? 1951] pp. 99–106, 5 figs.

177.—Bechyné, J. Les Chrysomeloidea neotropicaux des collections du Muséum Zool. de l'Université à Helsingfors. Notul. ent., Helsinki **31** 1951 pp. 59–66, 2 figs. [Col.]

178.—Bechyné, J. Chrysomeloidea americains nouveaux ou peu connus (Coleoptera). Rev. chil. Ent., Santiago **1** 1951 pp. 75–112, 2 figs.

179.—Beck, E. C. A new *Culicoides* from Florida (Diptera, Ceratopogonidae). Florida Ent., Gainesville **34** 1951 pp. 135–136, 2 figs.

Beck, S. D. *see* Ball & Beck.

180.—Beebe, W. Migration of Nymphalidae (Nymphalinae), Brassolidae, Morphidae, Libytheidae, Satyridae, Riodinidae, Lycaenidae and Hesperiidae (butterflies) through Portachuelo Pass, Rancho Grande, North-central Venezuela. Zoologica, New York **36** 1951 pp. 1–15, 2 pls. [Lep.]

181.—Beebe, W. Migration of insects (other than Lepidoptera) through Portachuelo Pass, Rancho Grande, North-central Venezuela. Zoologica, New York **36** 1951 pp. 255–266.

182.—Beebe, W. & **Fleming,** H. Migration of day-flying moths through Portachuelo Pass, Rancho Grande, North-central Venezuela. Zoologica, New York **36** 1951 pp. 243–253, 1 pl. [Lep.]

183.—Begg, M. & **Packman,** E. M. Antennae and mating behaviour in *Drosophila melanogaster*. Nature, London **168** 1951 p. 953. [Dipt.]

184.—[Beĭ-Bienko, G. Ya.] Contribution to the fauna of the Dermaptera and Orthoptera of Sakhalin and Kurile Islands. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 308–317, 7 figs.

185.—[Beĭ-Bienko, G. Ya.] Two new species of Acridids (Orthoptera, Acrididae) from the range Terskeĭ-Alatau in central Tyan'-Shan'. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 318–320, 2 figs.

186.—[Beĭ-Bienko, G. Ya.] Acrididae of the genus *Sphingonotus* Fieb. and their nearest kin (Orthoptera, Acrididae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 198–205, 8 figs.

187.—[Beĭ-Bienko, G. Ya.] On some associations of straightwinged insects (Orthoptera) in central asiatic deserts of the northern type. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 720–734.

188.—[Beĭ-Bienko, G. Ya. & **Mishchenko,** L. L.] Acridoidea of the fauna of the USSR and neighbouring countries. Pts. 1 and 2. [In Russian.] Opred. Faune SSSR, Moscow 1951 **38** 378 pp., 816 figs.; **40** 667 pp., 1318 figs.

189.—Beirne, B. P. The Nearctic species of *Oncopsis* (Homoptera: Cicadellidae). Canad. Ent., Ottawa **83** 1951 pp. 185–194, 27 figs.

190.—Beirne, B. P. Supplementary notes on the Canadian species of Cixiidae (Homoptera: Fulgoroidea). Canad. Ent., Ottawa **83** 1951 pp. 315–316.

191.—Beirne, B. P. Some notes on the design of light traps. Ent. Gaz., London **2** 1951 pp. 259–262, 1 pl.

192.—[Bekker-Migdisova, E. É.] Jurassic Palaeontinidae in a new layer on the River Iya. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **71** 1950 pp. 1105–1108, 3 figs. [Fossil, Lep.]

193.—[Bekker-Migdisova, E. É.] Quaint new fossil insects of the group Paraneoptera. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **78** 1951 pp. 1207–1210, 4 figs.

194.—[Bekker-Migdisova, E. E. & **Martuinova,** O. M.] The sites of the occurrence of myocenic insects in central Tyan-Shan and description of a new species of cicada. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **78** 1951 pp. 761–763, 1 fig. [Fossil, Hem.]

195.—Benander, P. *Scythris disparella* Tngstr. och *senescens* Stt. skilda arter (Lep.). Opusc. ent., Lund **16** 1951 pp. 191–192, 1 fig.

196.—Benick, L. Steninen aus dem ausserpalaearktischen Afrika. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 179–214, 19 figs. [Col.]

197.—Benick, L. Ueber das Sammeln von Pilzkäfern. Ent. Bl., Krefeld **47** 1951 pp. 43–48. [Col.]

198.—Benick, L. Ueber *Stenus picipes* Steph. und *monachus* Bernh., nebst einer Bestimmungstabelle des Subgenus *Hemistenus* Rey (Col. Staph.). Mitt. münchn. ent. Ges., Munich **41** 1951 pp. 283–290.

199.—Benick, L. Die Relikt-Natur der *Choleva holsatica* L. Bck. et G. Jhss. aus der Segeberger Höhle und die Möglichkeit ihrer Altersbestimmung. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 46–56, 1 map. [Col.]

200.—Benno, P. Aantekeningen over bijen en wespen V. Ent. Ber., Amsterdam **13** 1951 pp. 273–274. [Hym.]

201.—Benoist, R. Apides recueillis par MM. L. Berland et J. Panouse dans le Sud Marocain en 1947. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 37–48. [Hym.]

202.—Benoist, R. Hyménoptères récoltés par une Mission Suisse au Maroc (1947). Apidae, Megachilinae. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 183–193, 5 figs.

203.—Benoit, P. L. G. Nouveaux Dryinidae (Hym.) du continent africain. Ann. Mus. Stor. nat. Genova **64** 1951 pp. 298–302.

204.—Benoit, P. L. G. Alieniscidae nomen novum pro Alienidae Bridwell (Hym. Acul.). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 90–92.

205.—Benoit, P. L. G. Dryinidae (Hymenoptera Aculeata). Evaniidae (Hymenoptera Terebrantia). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 73 1951 26 pp. 10 figs.

206.—Benoit, P. L. G. Les Stephanides malgaches (Hymen.–Terebr.). Mém. Inst. Sci. Madagascar, Tananarive **5A** 1951 pp. 269–284, 19 figs.

207.—Benoit, P. L. G. La systématique des Trigonaloidae (Hym.) éthiopiens. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 141–147.

208.—Benoit, P. L. G. Nouveaux Dryinidae (Hym.-Acul.) éthiopiens. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 157–164.

209.—Benoit, P. L. G. Les genres *Oneilella* Cam. et *Osprynchotus* Spin. (Hym.-Ichneum.) au Congo belge. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 313–320.

210.—Benoit, P. L. G. Les Rhyssini ethiopiens (Pimplinae-Ichneumonidae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 382–385.

211.—Benoit, P. L. G. Hyménoptères nouveaux ou peu connus d'Afrique noire. Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 123–133.

212.—Benson, R. B. Handbooks for the identification of British Insects. Hymenoptera. 2. Symphyta. Section (a). London, R. ent. Soc. **6** 1951 pt. 2 (a) 49 pp. 127 figs.

Bentinck *see* Graaf Bentinck.

213.—Benz, F. Ein bemerkenswerter Befund bei den primären *P. elpenor—C. hippophaës*—Bastarden, *Pergesa* hybr. *irene* Denso und *Celerio* hybr. *rydbergi* John. Ent. Z., Frankfurt a. M. **61** 1951 pp. 59–63, 71–72. [Lep.]

214.—Benz, F. Zur Frage der Fertilität der Herbstgeneration von *Herse convolvuli* L. Mitt. ent. Ges. Basel (N.F.) **1** 1951 pp. 37–44, 46–47. [Lep.]

215.—Bequaert, J. C. Hippoboscidae (Diptera) transported by aircraft. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 49–51.

Bequaert, J. *see* Cooper & Bequaert.

216.—Bequaert, M. Contribution nouvelle à la connaissance des Mydaidae de l'Afrique tropicale. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 19, 20 pp. 7 figs. [Dipt.]

Berg, A. *see* Kühn & Berg.

217.—Berger, L. A. Un nouvel *Aphnaeus* du Congo belge (Lepidoptera-Lycaenidae). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 55–56.

218.—Berger, W. Insektenreste aus dem Pannon von Brunn-Vösendorf. Anz. öst. Akad. Wiss., Vienna **87** 1950 pp. 116–119, 2 figs. [Fossil.]

219.—Bergold, G. H. The polyhedral disease of the spruce budworm, *Choristoneura fumiferana* (Clem.) (Lepidoptera : Tortricidae). Canad. J. Zool., Ottawa **29** 1951 pp. 17–23, 4 figs.

220.—Bernard, J. & **Casimir,** J. A propos de l'enrichissement en azote d'une bouillie de larves de *Rhagoletis cerasi* L. (Dipt. Trypetidae). Bull. Inst. agron. Rech. Gembloux **19** 1951 pp. 387–389.

Bernard, R. *see* Lemonde & Bernard.

221.—Bernardi, G. Notes sur la nomenclature des Lycaenidae (Lep. Rhopalocera). Bull. Soc. ent. France, Paris **56** 1951 p. 30.

222.—Bernardi, G. Note sur les *Belenois creona* de Madagascar (Lep. Pieridae). Nat. malgache, Tananarive **3** 1951 pp. 155–157, 2 figs.

223.—Bernardi, G. La détermination des *Maculinea* français (Lycaenidae). Rev. franç. Lép., Paris **13** 1951 pp. 16–18, 5 figs. [Lep.]

224.—Bernardi, G. Les caractères distinctifs de trois *Pieris* français. Rev. franç. Lép., Paris **13** 1951 pp. 60–62, 7 figs. [Lep.]

225.—Bernardi, G., **Herbulot,** C. & **Picard,** J. Liste des Grypocères et Rhopalocères de la faune française conforme aux Règles internationales de la Nomenclature. [Contd.] Rev. franç. Lép., Paris **12** (1950) 1951 pp. 329–334. [Lep.]

226.—Bernardi, G. & **Lesse,** H. de. Les types de Nymphalidae paléartiques du Laboratoire d'Entomologie du Muséum national d'Histoire naturelle de Paris. Bull. Soc. ent. France, Paris **56** 1951 pp. 136–143. [Lep.]

227.—Bernardi, G. & **Stempffer,** H. Note sur quelques Rhopalocères (Lep.) recueillis par P. de Miré au Tibesti et au Mortcha. Bull. Soc. ent. France, Paris **56** 1951 pp. 47–48.

Bernardi, G. *see* Paulian & Bernardi.

228.—Berner, L. M. Limnology of the Lower Missouri River. Ecology, Lancaster, Pa. **32** 1951 pp. 1–12.

229.—Bernhauer, M. Staphylinidae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 227–293 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 267–282].

Berre *see* La Berre.

230.—Berry, P. A. Biology and habits of cotton stainers (Hemiptera : *Dysdercus* spp.), their natural enemies in South America, and two parasitic flies imported into Puerto Rico. Rev. Ent., Rio de Janeiro **22** 1951 pp. 329–342, 3 figs.

231.—Bertalanffy, L. von. Metabolic types and growth types. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 111–117. [Orth.]

232.—Bertrand, H. Un Trichoptère nouveau pour les Pyrénées : *Anomalopteryx chauviniana* Stein description de sa nymphe. Arch. Zool. exp. gén., Paris Notes et Rev. **87** 1951 pp. 177–188, 3 figs.

233.—Bertrand, H. Diptères Chironomides pyrénéens. Bull. Soc. ent. France, Paris **55** (1950) 1951 pp. 153–155.

234.—Bertrand, H. Captures et élevages de larves de Coléoptères aquatiques (12e–14e notes). Bull. Soc. ent. France, Paris **56** 1951 pp. 25–29, 75–80, 6 figs., 101–105, 3 figs.

235.—Bertrand, H. Les larves aquatiques suceuses. Entomologiste, Paris **7** 1951 pp. 64–74.

236.—Bertrand, H. Une nouvelle larve psephenoïde de Coléoptère aquatique. Publ. Cult. Comp. Diam. Angola, Lisbon no. 11 1951 pp. 85–95, 29 figs.

237.—Bertrand, H. & **Vaillant,** F. Observations biologiques sur les Gyrinides (Col.), la nymphe des *Aulonogyrus* Motsch. Bull. Soc. Hist. nat. Afr. N., Algiers **41** (1950) 1951 pp. 15–19, 2 figs.

238.—Best, A. A. Records of light traps 1947 to 1949. Ent. Gaz., London **1** 1950 pp. 225–231.

239.—Best, A. E. G. The butterflies of Bombay and Salsette. J. Bombay nat. Hist. Soc. **50** 1951 pp. 331–339. [Lep.]

240.—Betrem, J. G. Het genus *Lansdownia* Heylaerts 1881 (Lep., fam. Psychidae). Tijdschr. Ent., Amsterdam **94** 1951 pp. XLI–XLIII.

241.—Betten, C. The genus *Pycnopsyche* (Trichoptera). Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 508–522, 4 pls.

242.—Betten, H. *Caraphractus cinctus* Hal., ein Wasserhymenopter (Mymaridae). Bonn. zool. Beitr. **2** 1951 pp. 135–139, 2 figs.

243.—Bettini, S., **Sarkaria,** D. S. & **Patton,** R. L. Observations on the fate of vertebrate erythrocytes and hemoglobin injected into the blood of the American cockroach (*Periplaneta americana* L.). Science, Lancaster, Pa. **113** 1951 pp. 9–10, 1 fig. [Orth.]

Bettini, S. *see* Sarkaria, Bettini & Patton.

244.—Betz, J. Comment résoudre le problème du transport d'un important matériel vivant récolté au cours de longs déplacements. Rev. franç. Lép., Paris **13** 1951 pp. 53–55, 8 figs.

245.—Beuret, H. Einige Gedanken über das Etikettieren von Insekten. Ver.-Nachr. Ent.-Ver. Basel **6** 1949 pp. 9–11, 12–14, 18–19.

Bhasin, G. D. *see* Roonwal, Bhasin, Pant & Misra.

246.—Bick, E. H. The ecology of the mosquito larvae of New Guinea. Pacific Sci., Honolulu **5** 1951 pp. 392–431, 1 fig. [Dipt.]

247.—Bick, G. H. Notes on Oklahoma dragonflies. J. Tenn. Acad. Sci., Nashville **26** 1951 pp. 178–180. [Odon.]

248.—Bick, G. H. The nymph of *Libellula semifasciata* Burmeister (Odonata, Libellulidae). Proc. ent. Soc. Washington **53** 1951 pp. 247–250, 7 figs.

249.—Binaghi, G. Sull'*Odontocerus antigue* Buyss. nuove catture e nuovi caratteri diagnostici (Col. Elateridae). Mem. Mus. Stor. nat. Verona **2** (1949–50) [?1951] pp. 7–10, 7 figs.

250.—Birch, L. C., **Park,** T. & **Frank,** M. B. The effect of intraspecies and interspecies competition on the fecundity of two species of flour beetles. Evolution, Lancaster, Pa. **5** 1951 pp. 116–132, 4 figs. [Col.]

251.—Birchler, A. Schmetterlings-Fauna der Linthebene. 3. Fortsetzung : Ergebnisse 1946–1951. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 197–199. [Lep.]

252.—Bischoff, H. Ueber einige Trigonaloiden des British Museum (Natural History) (Hymenoptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 908–914.

253.—Blackie, J. E. H. The range and distribution of *Agapetes galathea* L. Entomologist, London **84** 1951 pp. 132–135. [Lep.]

254.—[Blagoveshchenskiĭ, D. I.] Mallophaga from birds of the Barabinsk lakes. I, II. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 259–294, 21 figs. ; **12** 1950 pp. 87–122, 7 figs.

255.—[Blagoveshchenskiĭ, D. I.] The structure of the digestive system of Mallophaga in connection with their nutrition. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1949 pp. 229–252, 7 pls. 1 fig.

256.—[Blagoveshchenskiĭ, D. I.] Lice of synanthropic rodents in Tadzhikistan. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 80–86, 3 figs. [Anopl.]

257.—[Blagoveshchenskiĭ, D. I.] Mallophaga of Tadzhikistan. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **13** 1951 pp. 272–327, 18 figs.

258.—Blair, K. G. Neuroptera of the Isle of Wight. Proc. Is. Wight nat. Hist. Soc., Newport **4** 1951 pp. 157–162.

259.—Blake, D. H. A revision of the beetles of the genus *Chalcosicya* Blake (Chrysomelidae) from the West Indies. Bull. Mus. comp. Zool. Harv., Cambridge, Mass. **106** 1951 pp. 287–312, 3 pls.

260.—Blake, D. H. New species of Chrysomelid beetles of the genera *Trirhabda* and *Disonycha*. J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 324–328, 10 figs. [Col.]

261.—Blake, D. H. Synonymies and new species of fleabeetles (Coleoptera, Chrysomelidae). Proc. ent. Soc. Washington **53** 1951 pp. 138–147, 1 pl.

262.—Blanchard, E. E. Un extraordinario Pterocállido de los Yungas (Dipt. Acalyptrata). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 32–34, 1 fig.

263.—Blöte, H. C. Nogmaals *Graphosoma lineatum* L. var. *italicum* (Muell.). Ent. Ber., Amst. **13** 1951 pp. 290–292, 10 figs. [Hem.]

264.—Blunck, H. Zur Kenntnis der Hyperparasiten von *Pieris brassicae* L. 3. u. 4. Beiträge. Z. angew. Ent., Berlin 1951 **32** pp. 335–405, 15 figs. ; **33** pp. 217–267, 26 figs. [Lep., Hym.]

265.—Blunck, H. Parasiten und Hyperparasiten von *Pieris rapae* L. Z. PflKrankh., Ludwigsburg **58** 1951 pp. 25–54, 13 figs. [Lep., Hym.]

266.—Blüthgen, P. Was ist *Odynerus emortualis* Sss. (1852?)? (Hymen. Eumenidae). Ann. Mus. Stor. nat. Genova **64** 1951 pp. 327–329.

267.—Blüthgen, P. Die *Euodynerus*-Arten des Balkans (Hym. Vespidae Eumeninae). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 66–76.

268.—Blüthgen, P. Neues oder Wissenswertes über mitteleuropäische Aculeaten und Goldwespen II (Hym.). Bonn. zool. Beitr. **2** 1951 pp. 229–234.

269.—Blüthgen, P. Weitere Beiträge zur Kenntnis der paläarktischen Faltenwespen (Hym. Vespidae). Mitt. münchn. ent. Ges., Munich **41** 1951 pp. 158–165.

270.—Blüthgen, P. Neue oder bemerkenswerte paläarktische Faltenwespen aus der Zoologischen Staatssammlung in München (Hym. Vespidae, Eumenidinae). Mitt. münchn. ent. Ges., Munich **41** 1951 pp. 166–201.

271.—Blüthgen, P. *Chrysis brevitarsis* Thoms., eine verschollene Art (Hym. Chrysididae). Nachr. naturw. Mus. Aschaffenburg Heft 30 1951 pp. 59–61.

272.—Boag, J. W. On the interpretation of the dose-frequency curve in radio genetics. Genetics, New York **36** 1951 pp. 281–284. [Dipt.]

273.—Bobb, M. L. Life history of *Ochterus banksi* Barber (Hemiptera : Ochteridae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 92–100, 1 pl.

274.—Bodenheimer, F. S. Citrus entomology in the Middle East with special reference to Egypt, Iran, Irak, Palestine, Syria, Turkey. The Hague, W. Junk 1951 xii+663 pp. 43 pls. 154 figs.

275.—Bodenheimer, F. S. Insects as human food. A chapter of the ecology of man. The Hague, W. Junk 1951 352 pp. 47 figs. 1 frontisp.

276.—Bodenheimer, F. S. Description of some new genera of Coccoidea. Ent. Ber., Amsterdam **13** 1951 pp. 328–331. [Hem.]

277.—Bodenheimer, F. S. & **Harpaz,** A. Holometabolic development in the males of Coccoidea. Bull. Res. Coun. Israel, Jerusalem **1** 1951 pp. 133–135, 4 figs. [Hem.]

278.—Bodenheimer, F. S. & **Shulov,** A. Egg-development and diapause in the Moroccan locust (*Dociostaurus maroccanus* Thnb.). Bull. Res. Coun. Israel, Jerusalem **1** 1951 pp. 59–75, 6 figs. [Orth.]

279.—Bodenheimer, F. S. & **Shulov,** A. Proteolytic enzymes of insects. II. Enzymologia, The Hague **13** 1949 pp. 276–280. [Orth.]

280.—Bödewadt, G. H. Untersuchungen über das Zellteilungsgeschehen in der Entwicklung der Flügelanlagen von Kleinschmetterlingen. Biol. Zbl., Leipzig **70** 1951 pp. 31–64, 4 figs. [Lep.]

281.—Bodine, J. H. & **Lu,** Kiao-Hung. Endogenous oxygen uptake and specificity of embryonic intracellular constituents. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 153–158, 3 figs. [Orth.]

282.—Bodine, J. H. & **Lu,** Kiao-Hung. Oxygen uptake of intact embryos, their homogenates, and intracellular constituents. Physiol. Zool., Chicago **23** 1950 pp. 301–308, 1 pl. 3 figs. [Orth.]

283.—Bodine, J. H. & **Lu,** Kiao-Hung. The site of the inhibitory action of ethyl carbamate and sodium azide on the oxygen uptake of embryonic cells. Physiol. Zool., Chicago **24** 1951 pp. 116–120, 5 figs. [Orth.]

284.—Bodine, J. H. & **Lu,** Kaio-Hung. Structure and endogenous oxygen uptake of embryonic cells. Physiol. Zool., Chicago **24** 1951 pp. 120–126, 1 pl. 3 figs. [Orth.]

285.—[Bogachev, A. V.] New and little-known species of the tribe Erodiini (Coleoptera, Tenebrionidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 231–236, 1 fig.

286.—Bohart, G. E. & **Gressitt,** J. L. Filth-inhabiting flies of Guam. Bull. Bishop Mus., Honolulu no. 204 1951 vii & 152 pp. 17 pls. 14 figs. [Dipt.]

287.—Bohart, R. M. New species of solitary Vespidae from North America (Hymenoptera, Vespidae). Proc. biol. Soc. Washington **63** 1950 pp. 77–81.

288.—Bohart, R. M. North American additions to the genus *Pterocheilus* (Hymenoptera, Vespidae). Proc. biol. Soc. Washington **63** 1950 pp. 195–202.

289.—Bohart, R. M. The Myrmecolacidae of the Philippines (Strepsiptera). Wasmann J. Biol., San Francisco **9** 1951 pp. 83–103, 4 pls. [Col.]

Bohart, R. M. *see* Freeborn & Bohart.

290.—Böhm, O. Beitrag zur Taxonomie der Bibionidenlarven. Pflanzensch. Ber., Vienna **7** 1951 pp. 159–160, 2 figs. [Dipt.]

291.—Boldori, L. Problemi biospeleologici.—II°. Natura, Milan **42** 1951 pp. 90–95. [Col.]

292.—Bollow, H. Schnabelkerfe (Hemipteroidea). Naturw. Grundbegr. landb. Praxis, Münich (Zool.) **13** 1951 6 pp. 11 figs.

293.—Bollow, H. Pflanzensauger (Homoptera) I. Zikaden (Cicadina). IV. Schildläuse (Coccina). Naturw. Grundbegr. landb. Praxis, Münich (Zool.) 1951 **14** 4 pp. 11 figs. ; **17** 6 pp. 8 figs.

294.—Bollow, H. Hautflügler (Hymenopteroidea) I. Pflanzenwespen (Symphyta). Naturw. Grundbegr. landb. Praxis, Münich Zool. **18** 1951 6 pp. 11 figs.

295.—Bollow, H. Ueber das Konservieren und Präparieren von botanischen und zoologischen Objecten. B. Tierische Objekte. Pflanzenschutz, Münich **3** 1951 pp. 66, 81–82.

296.—Bonadona, P. Les *Anthicus* français du groupe du *fenestratus* Schmidt. Rev. franç. Ent., Paris **18** 1951 pp. 143–153, 12 figs. [Col.]

297.—Bonhag, P. F. The skeletomuscular mechanism of the head and abdomen of the adult horsefly (Diptera : Tabanidae). Trans. Amer. ent. Soc., Philadelphia **77** 1951 pp. 132–202, 14 pls. 1 fig.

298.—Bonnemaison, L. Contribution à l'étude des facteurs provoquant l'apparition des formes ailées et sexuées chez les Aphidinae. Ann. Inst. Rech. agron., Paris (Sér. C) Ann. Epiphyties **2** 1951 pp. 1–380, 78 figs. [Hem.]

299.—Bonne-Wepster, J. Notes on Oriental and Australasian mosquitoes of the Malay Archipelago. Docum. neerl. indones. Morbis trop., Amsterdam **3** 1951 pp. 67–74, 12 figs. [Dipt.]

300.—Bonnier, G. & **Lüning,** K. G. Spontaneous and X-ray induced gynandromorphs in *Drosophila melanogaster*. Hereditas, Lund **37** 1951 pp. 469–487, 3 figs. [Dipt.]

Bonsall, M. G. *see* Sieburth, Bonsall & McLaren.

301.—Boratynski, K. L. On the biology of some British Coccoidea. Proc. R. ent. Soc. London (A) **12** 1951 pp. 43–44. [Hem.]

302.—Borchmann, F. Meloidae, Lagriidae, Alleculidae und Nilionidae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 313–328, 2 figs. [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 300–314, 2 figs.].

303.—Bordas, E. & **Downs,** W. G. Estudio ecológico de *A. aztecus*, Hoffmann, 1935. Rev. Inst. Salub. Enferm. trop. Mexico **11** 1950 pp. 125–132. [Dipt.]

304.—[**Borkhsenius,** N. S. & **Khadzhibeili,** Z. K.] Scales of the genus *Kuwanaspis* Macg. (Homoptera, Coccoidea), injuring bamboo in the Caucasus and the Crimea. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 12–17, 6 figs.

305.—**Börner,** C. Kleiner Beitrag zur Kenntnis von *Myzodes persicae* Sulzer. Nachr. dtsch. PflSchDienst, Berlin (N.F.) **5** 1951 pp. 101–111, 3 figs. [Hem.]

306.—[**Borodulina,** T. L.] On the nutrition and possible economic importance of certain fresh-water gulls and terns. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 602–606.

307.—**Borror,** D. J. New records of Maine dragonflies (Odonata). Ent. News, Lancaster, Pa. **62** 1951 pp. 209–217.

308.—**Borusiewicz,** A. & **Kapuściński,** S. Materials to the knowledge about the dissemination of the genus *Carabus* Lin. (Carabidae, Coleoptera) in the Polish forests. [In Polish with English summary.] Prace roln.-leśne, Cracow no. 54 1950 [2+] 33 pp. 1 map.

309.—**Bosch,** R. van der & **Haramoto,** F. H. *Opius oophilus* Fullaway, an egg-larval parasite of the Oriental fruit fly discovered in Hawaii. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 251–255, 6 figs. [Hym.]

Bosch, R. van der *see* Newell, Bosch & Haramoto.

310.—**Bose,** M. On the biology of *Coranus spiniscutis* Reuter: an assassin bug (Fam. Reduviidae). Indian J. Ent., New Delhi **11** (1949) 1951 pp. 203–208, 7 figs. [Hem.]

311.—**Bosq,** J. M. Revisión del género *Calydon* Thoms. 1864 (Col. Cerambycidae). An. Soc. cient. argent., Buenos Aires **152** 1951 pp. 51–62.

312.—**Bosq,** J. M. Novedades en Cerambícidos chilenos (Coleoptera Cerambycidae). Rev. chil. Ent., Santiago **1** 1951 pp. 191–197.

313.—**Bosq,** J. M. Novedades en Cerambícidos del norte argentino. I (Col. Cerambyc.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 96–107.

314.—**Botosaneanu,** L. Zwei kleine Mitteilungen über Trichopteren. Mitt. Mus. Naturk. Magdeburg **3** 1951 pp. 49–54, 4 figs.

315.—**Bott,** R. Beobachtungen an Singzikaden. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 193–197, 5 figs. [Hem.]

316.—**Bott,** R. Die Gallische Wespe (*Polistes gallicus*). Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 322–327, 6 figs. [Hym.]

317.—**Bouček,** Z. The first revision of the European species of the family Chalcididae (Hymenoptera). Acta ent. Mus. nat. Pragae **27** 1951 suppl. 1, 108 pp., 17 pls.

318.—**Boucly-Urison,** M. La chenille de *Galleria mellonella* L. et son évolution entre deux mues successives. Bull. Soc. zool. France, Paris **76** 1951 pp. 171–177, 3 figs. [Lep.]

319.—**Boudreaux,** H. B. The insect family Aphididae in Louisiana. Proc. La Acad. Sci., Baton Rouge **14** 1951 pp. 14–22. [Hem.]

320.—**Boulanger,** J. P. & **Fournier,** O. Contribution à la biologie de la tisseuse des vêtements (*Tineola bisselliella* Hum.). Rev. canad. Biol., Montreal **9** 1950 pp. 226–230. [Lep.]

321.—**Bounhiol,** J. J. Voltinisme expérimental (suppression de la diapause) imposé à plusieurs générations successives de *Bombyx mori* L. C.R. Acad. Sci., Paris **232** 1951 pp. 2360–2362. [Lep.]

322.—**Bourgogne,** J. La classification des insectes. Bull. Soc. ent. Mulhouse **1951** 1951 pp. 1–5.

323.—**Bourgogne,** J. La variation intraspécifique chez les Lépidoptères. Rev. franç. Lép., Paris **13** 1951 pp. 65–77, 2 pls.

Bournier, A. *see* Tuzet & Bournier.

324.—**Bourquin,** F. Metamorfosis de *Artace obumbrata* Köhler (Lep. Lasiocam.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 165–171, 3 figs.

325.—**Boursin,** C. Eine neue *Agrotis* aus Nord-Persien, *Agrotis psammocharis* n. sp. Ark. Zool., Stockholm (N.S.) **1** 1951 pp. 355–356, 1 pl. [Lep.]

326.—Boursin, C. Description d'une *Hadena* Schrk. nouvelle des Pyrénées orientales françaises (Lep. Phalaenidae=Agrotidae). Contributions à l'étude des Agrotidae-Trifinae XLVIII. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 401–409, 1 pl.

327.—Boursin, C. Eine seit 175 Jahren verkannte europäische *Derthisa*-Art. Z. wien. ent. Ges., Vienna **36** 1951 pp. 44–51. [Lep.]

328.—Bowden, S. R. Results of repeated pairing in *Pieris napi*: use of a recessive variety as a marker. Entomologist, London **84** 1951 p. 278.

329.—Bowen, V. T. The uptake and distribution of barium^{140} and lanthanum^{140} in larvae of *Drosophila repleta*. J. exp. Zool., Philadelphia, Pa. **118** 1951 pp. 509–529, 2 pls. [Dipt.]

Bowen, V. T. *see* Poulson & Bowen.

330.—Bowman, K. An annotated list of the Lepidoptera of Alberta. Canad. J. Zool., Ottawa **29** 1951 pp. 121–165, 1 map.

331.—Box, H. E. New species and records of *Diatraea* Guild. from northern Venezuela (Lepid., Pyral.). Bull. ent. Res., London **42** 1951 pp. 379–398, 1 pl. 5 figs.

Bradbury, F. R. *see* Armstrong, Bradbury & Standen.

332.—Bradfield, J. R. G. Phosphatases and nucleic acids in silk glands: cytochemical aspects of fibrillar protein secretion. Quart. J. micr. Sci., London **92** 1951 pp. 87–112, 2 pls. 2 figs.

333.—Bradley, G. A. A field key to the species of *Cinara* (Homoptera: Aphididae) of Canada east of the Rockies. Canad. Ent., Ottawa **83** 1951 pp. 333–335.

334.—Bradley, J. D. A new species of *Labdia* (Lepidoptera: Cosmopterygidae) from India, hitherto erroneously identified as *Labdia promacha* (Meyrick). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 510–513, 1 pl.

335.—Bradley, J. D. A comparative study of four European species, including one new species from Britain, belonging to the genus *Mompha* Huebner (Lepidoptera: Lavernidae). Ent. Gaz., London **2** 1951 pp. 173–182, 5 pls.

336.—Bradley, J. D. Notes on the family Arrhenophanidae (Lepidoptera: Heteroneura), with special reference to the morphology of the genitalia, and descriptions of one new genus and two new species. Entomologist, London **84** 1951 pp. 178–185, 6 figs.

337.—Bradley, J. D. *Mendesia farinella* (Thunberg) (Lepidoptera Elachistidae): a species new to Britain. Microscope, London **7** 1950 pp. 299–303, 5 figs.

338.—Braestrup, F. W. (Ed.) Vort Lands Dyreliv. Bd. 2. Copenhagen 1950. (Insects by Nielsen, A., Larsson, G. & Spärck, R. pp. 225–391 illus.)

339.—Brakman, P. J. *Oncotylus viridiflavus* Goeze (Hem.-Het.), een opvallende nieuwe Miride voor de ned. fauna. Ent. Ber., Amsterdam **13** 1951 pp. 199–201, 1 fig.

340.—Brakman, P. J. Een drietal zeldzame Carabiden (Col.) uit Walcheren. Ent. Ber., Amsterdam **13** 1951 pp. 250–251.

341.—Brandt, F. H. Lepidopterologische Sammelerinnerungen aus dem Gebiet der Ammat (Livland). Mit einem Verzeichnis der dort gesammelten Arten. KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 231–245.

342.—Brandt, H. Pflanzensauger (Homoptera) II, III. Naturw. Grundbegr. landb. Praxis, Münich (Zool.) 1951 **15** 4 pp. 6 figs.; **16** 8 pp. 8 figs.

343.—Brandt, H. Hautflügler (Hymenopteroidea) II, III. Naturw. Grundbegr. landb. Praxis, Münich Zool. 1951 **19** 6 pp. 10 figs.; **20** 4 pp. 2 figs.

344.—Braun, A. F. The *Aesculus*-feeding species of *Exartema* with description of a new species (Lepidoptera, Eucosmidae). Ohio J. Sci., Columbus **51** 1951 pp. 353–357, 10 figs.

345.—Brauns, A. Die ökologische Bedeutung der Zweiflügler (Diptera). Beitr. Naturk. Niedersachs., Hanover no. 7 1949 pp. 16–35.

346.—Brauns, A. Flügel- und Halterenreduktion bei Dipterenarten von den Kerguelen-Inseln. Dtsch. zool. Z., Hanover & Berlin **1** 1951 pp. 196–221, 11 figs.

347. — Brauns, A. Sind die Schwingkölbchen der Zweiflügler (Diptera) rudimentäre Organe ? Ent. Z., Frankfurt a. M. **60** 1951 pp. 147–152, 159–160, 166–168, 1 fig.

348.—Brčák, J. Contribution à la connaissance des Lépidoptères des Hautes Tatras. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 167–178, 3 figs.

349.—Breeland, S. G. The identification of the early larval instars of three common Anophelines of southern Georgia, U.S.A. J. nat. Malar. Soc., Savannah, Ga. **10** 1951 pp. 224–232, 3 figs. [Dipt.]

350.—[Breev, K. A.] On the behaviour of bloodsucking Diptera and gadflies when attacking reindeer and on the responsive reactions of the deer. I, II. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 167–198, 9 figs. ; **13** 1951 pp. 343–354.

351.—Breland, O. P. The immature stages of *Aëdes infirmatus* Dyar and Knab with notes on related species (Diptera : Culicidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 362–371, 12 figs.

Breland, O. P. *see* Wilkins & Breland.

Brener, Z. *see* Pellegrino & Brener.

352.—Brennan, J. M. The occurrence of *Anopheles crucians* in Guatemala. Amer. J. trop. Med., Baltimore **31** 1951 p. 138. [Dipt.]

353.—Breny, R. Polyédrose chez *Neodiprion sertifer* Geoffr. Parasitica, Gembloux **7** 1951 pp. 118–124. [Hym.]

354.—Bretherton, R. F. The early history of the swallow-tail butterfly (*Papilio machaon* L.) in England. Ent. Rec., London **63** 1951 pp. 206–211. [Lep.]

355.—Bretschneider, R. Neubesiedelung der Dresdner Fauna durch Einwanderung und Verbreitung mehrerer Makrolepidopteren. Ent. Z., Frankfurt a. M. **60** 1950 pp. 87–88, 96, 120.

356.—Bretschneider, R. Vorschläge zur Bezettelung (Benennung) von Mutations-kombinationen. Ent. Z., Frankfurt a. M. **61** 1951 pp. 36–40.

357.—Bretschneider, R. Neue Geometriden-Formen in Sachsen. Z. wien. ent. Ges., Vienna **36** 1951 pp. 21–22. [Lep.]

Breuer, M. E. *see* Dreyfus, Nonato, Breuer & Pavan.

358.—Breuning, S. Deux nouveaux Lamiaires du Musée de Gênes (Coleoptera, Cerambycidae). Ann. Mus. Stor. nat. Genova **64** 1951 pp. 303–304.

359.—Breuning, S. Notes systématiques sur les Longicornes de Nouvelle-Calédonie.—I. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 32, 24 pp. [Col.]

360.—Breuning, S. Revision du genre *Phytoecia* Muls. (Col. Cerambycidae). Ent. Arb., Munich **2** 1951 pp. 1–103, 353–460, 3 pls.

361.—Breuning, S. Eine neue *Carabus*-Art aus Burma. Ent. Arb., Munich **2** 1951 pp. 574–575.

362.—Breuning, S. Lamiaires nouveaux du Congo belge (Col. Cerambycidae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 148–155.

363.—Breuning, S. Nouvelles formes de Lamiaires (Cerambycidae, Coleoptera). Sarawak Mus. J. **5** 1950 pp. 373–388.

364.—Breuning, S. Nouveaux Lamiaires du Musée d'Amsterdam (Col. Ceramb.). Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 134–140.

Breuning, S. *see* Lepesme & Breuning.

365.—Brian, A. D. Brood development in *Bombus agrorum* (Hym., Bombidae). Ent. mon. Mag., London **87** 1951 pp. 207–212.

366.—Brian, A. D. The pollen collected by bumble-bees. J. Anim. Ecol., London **20** 1951 pp. 191–194. [Hym.]

367.—Brian, M. V. Ant culture for laboratory experiment. Ent. mon. Mag., London **87** 1951 pp. 134–136, 1 fig. [Hym.]

368.—Brian, M. V. Caste determination in a Myrmicine ant. Experientia, Basle **7** 1951 pp. 182–183. [Hym.]

369.—Brian, M. V. Summer population changes in colonies of the ant *Myrmica*. Physiol. comp.oecol., The Hague **2** 1951 pp. 248–262, 2 figs. [Hym.]

370.—Brian, M. V. & A. D. Insolation and ant population in the West of Scotland. Trans. R. ent. Soc. London **102** 1951 pp. 303–330, 1 fig. [Hym.]

371.—Bridarolli, A. J. Diptera Phoridae do Kivu (Gen. *Megaselia*) del Museo del Congo Belga (Tervuren). Ann. Mus. Congo belge, Brussels (Sér. 8°) Zool. **7** 1951 67 pp. 31 figs.

372.—Brinck, P. Anoplura from the Galapagos Islands. Nytt Mag. Naturv., Oslo **88** p. 246.

373.—Brinck, P. The Gyrinidae of Angola. Publ. cult. Comp. Diam. Angola, Lisbon no. 11 1951 pp. 97–111, 2 figs. [Col.]

374.—Brinck, P. The 3rd Danish Expedition to Central Asia. Zoological results. 1. Plecoptera (Insecta) from Afghanistan. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **112** 1950 pp. 133–138, 3 figs.

375.—Brito da Cunha, A. Modification of the adaptive values of chromosomal types in *Drosophila pseudoobscura* by nutritional variables. Evolution, Lancaster, Pa. **5** 1951 pp. 395–404. [Dipt.]

376.—Brito da Cunha, A., **Dobzhansky,** T. & **Sokoloff,** A. On food preferences of sympatric species of *Drosophila*. Evolution, Lancaster, Pa. **5** 1951 pp. 97–101. [Dipt.]

377.—Britt, N. W. Observations on the life history of the Collembolan *Achorutes armatus*. Trans. Amer. micr. Soc., Columbus **70** 1951 pp. 119–132, 3 figs.

378.—Britton, E. B. The nomenclature of *Heteronychus sanctaehelenae* Blanchard (Coleoptera : Scarabaeidae ; Dynastinae). Proc. Linn. Soc. New South Wales, Sydney **76** 1951 pp. 133–134.

379.—Brncić J., D. Tasa de mutabilidad en una cepa chilena de *Drosophila melanogaster*. Biologica, Santiago de Chile fasc. XII–XIII 1951 pp. 39–43, 1 fig. [Dipt.]

380.—Brncić, D. & **Koref,** S. Influence of diethystilbestrol on *Drosophila melanogaster* tumors. Science, Lancaster, Pa. **114** 1951 pp. 492–493. [Dipt.]

381.—Broadbent, L. Aphid excretion. Proc. R. ent. Soc. London (A) **26** 1951 pp. 97–103. [Hem.]

382.—Broadbent, L. & **Hollings,** M. The influence of heat on some Aphids. Ann. appl. Biol., London **38** 1951 pp. 577–581, 2 figs. [Hem.]

382A.—Brocher, F. Etude expérimentale sur le fonctionnement du vaisseau dorsal et sur la circulation du sang chez les insectes. 5e partie. La *Periplaneta orientalis*. Ann. Soc. ent. France, Paris **91** 1922 pp. 156–164, 1 fig. [Orth.]

Bromleĭ, N. V. *see* Arsen'ev & Bromleĭ.

383.—Bromley, S. W. Asilid notes (Diptera), with descriptions of thirty-two new species. Amer. Mus. Novit., New York no. 1532 1951 36 pp. 8 figs.

384.—Bromley, S. W. Asilidae (Diptera Brachycera Orthorrhapha). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 77 1951 pp. 45–48.

385.—Brookes, A. E. Cape Expedition, Scientific Results of the New Zealand Sub-Antarctic Expedition, 1941–45. The Coleoptera of the Auckland and Campbell Islands. Bull. Cape Exped. Ser., Wellington no. 5 1951 68 pp. 2 maps, 22 figs.

386.—Brooks, J. G. Check list of Australian Dryopidae. N. Queensl. Nat., Cairns **19** 1951 pp. 4–5. [Col.]

387.—de Bros, E. Chasses à la lampe à Binningen (Bâle campagne). Mitt. ent. Ges. Basel (N.F.) **1** 1951 pp. 56–58, 71–72, 80–82, 96–99. [Lep.]

388.—Brown, A. W. A. Studies on the responses of the female *Aëdes* mosquito. Part IV. Field experiments on Canadian species. Bull. ent. Res., London **42** 1951 pp. 575–582, 1 pl. [Dipt.]

389.—Brown, A. W. A., **Sarkaria,** D. S. & **Thompson,** R. P. Studies on the responses of the female *Aëdes* mosquito. Part I.—The search for attractant vapours. Bull. ent. Res., London **42** 1951 pp. 105–114, 1 pl. [Dipt.]

Brown, A. W. A. *see* Harvey & Brown ; Orser & Brown ; Peterson & Brown.

390.—Brown, E. S. Expedition to South-West Arabia 1937–8. Aquatic and semi-aquatic Hemiptera. London, Brit. Mus. (Nat. Hist.) **1** 1951 pp. 221–273, 1 pl. 25 figs.

391.—Brown, E. S. Variation and polymorphism in *Lampetia equestris* (F.) (Dipt., Syrphidae) and other British mimetic insects. Ent. mon. Mag., London **87** 1951 pp. 16–18.

392.—Brown, E. S. The identity of British *Velia* (Hem., Veliidae), with an account of a species new to Britain. Ent. mon. Mag., London **87** 1951 pp. 297–306, 6 figs.

393.—Brown, E. S. A collection of aquatic Hemiptera from Kenya. J. E. Afr. nat. Hist. Soc., Nairobi **20** 1951 pp. 393–397, 1 fig.

394.—Brown, E. S. The stridulation of *Eremogryllus hammadae* Krauss (Orthoptera, Acrididae). Proc. R. ent. Soc. London (A) **26** 1951 pp. 89–92, 2 figs.

395.—Brown, E. S. The relation between migration-rate and type of habitat in aquatic insects, with special reference to certain species of Corixidae. Proc. zool. Soc. London **121** 1951 pp. 539–545. [Hem.]

396.—Brown, F. M. Colorado *Plebeius saepiolus*. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 286–292. [Lep.]

397.—Brown, F. M. The American Papilios. Lep. News, New Haven **4** (1950) 1951 pp. 63–67.

398.—Brown, H. P. *Climacia areolaris* (Hagen) parasitised by a new Pteromalid (Hymenoptera : Chalcidoidea) II. Life history of the parasite. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 103–110, 8 figs.

399.—Brown, W. J. The American species of *Phratora* Chev. (Coleoptera : Chrysomelidae). Canad. Ent., Ottawa **83** 1951 pp. 121–130, 1 fig.

400.—Brown, jr. W. L., New synonymy of a few genera and species of ants. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 101–106. [Hym.]

401.—Brown, jr. W. L., & **Yasumatsu,** K. On the publication date of *Polyhomoa itoi* Azuma (Hymenoptera, Formicidae). Mushi, Fukuoka **22** 1951 pp. 93–95.

Brown, jr. W. L., *see* Yasumatsu & Brown.

402.—Bruce, N. Eine neue *Orthoperus*art (Corylophidae) (*Orthoperus intersitus* n. sp.). Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 100–102, 1 fig. [Col.]

403.—Bruce, N. Cryptophagidae (Coleoptera Polyphaga). Explor. Parc nat. Albert, Miss. de Witte 1933–1935), Brussels no. 75 1951 **26** pp. 2 pls. 11 figs.

404.—Bruce, N. Studier över *Henoticus germanicus* Reitt. (Col.) (*Coniophthalma germanica* Reitt.). Opusc. ent., Lund **16** 1951 pp. 27–31.

405.—Brůčková, B. Sur la variabilité de *Amphidasis betularia* L. en Bohême. Acta ent. Mus. nat. Pragae **26** 1948 no. 356, 4 pp. [Lep.]

406.—Brůčková, B. Sur les espèces du genre *Poecilopsis* Harrison de Bohême. [In Czech and Latin with French summary.] Acta ent. Mus. nat. Pragae **26** 1949 no. 365, 5 pp. [Lep.]

407.—Brues, C. T. A migrating army of Sciarid larvae in the Philippines. Psyche, Cambridge, Mass. **58** 1951 pp. 73–76. [Dipt.]

Bruijns *see* Mörzer Bruijns.

408.—Bruner, S. C. A new species of the genus *Macrocephalus* from Cuba (Hemiptera : Phymatidae). Mem. Soc. cubana Hist. nat., Havana **20** 1951 pp. 71–74, 1 fig.

409.—Bruner, S. C. List of the Pentatomidae of Cuba (a correction). Mem. Soc. cubana Hist. nat., Havana **20** 1951 p. 75. [Hem.]

410.—Bruner, S. C. Algunas adiciones a la lista de Coleópteros de Cuba. Mem. Soc. cubana Hist. nat., Havana **20** 1951 pp. 81–88.

411.—Brunet, P. C. J. The formation of the ootheca by *Periplaneta americana*. I. The micro-anatomy and histology of the posterior part of the abdomen. Quart. J. micr. Sci., London **92** 1951 pp. 113–127, 5 figs. [Orth.]

Bruun, H. *see* Schantz & Bruun.

Bryan, D. E. *see* Smith, Bryan & Allen.

412.—Bryant, G. E. New species of Chrysomelidae (Haliticinae) from New Guinea, collected by Miss L. E. Cheesman [contd.]. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 157–165, 794–801, 12 figs.

413.—Bryant, G. E. New species of Halticinae (Coleoptera, Chrysomelidae) from the Argentine Republic. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 938–942, 4 figs.

414.—[Bryantzeva, I. B.] The structure of the fore section of the digestive tract in insects of the orthopteroid complex. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 132–141, 6 figs.

415.—Bryk, F. Ueber den Habitus der Satyride, *Pararge achine* (Scop.), in Schweden (Lepidoptera). Ent. Tidskr., Stockholm **72** 1951 pp. 29–36, 2 figs.

416.—Bryk, F. Entomologia ethnographica. Ent. Tidskr., Stockholm **72** 1951 pp. 162–167, 204, 1 photo.

417.—Bryk, F. Neue *achine*-Formen (Lep. : Satyridae). Ent. Tidskr., Stockholm **72** 1951 pp. 181–183.

418.—Bryk, F. Sendschreiben an Herrn Pfarrer Dr. Otto Kleinschmidt über Vögel, Schmetterlinge, Linné und die Museologie. Syllegomena biol. (Festschr. 80. Geburts. O. Kleinschmidt), Leipzig 1950 pp. 69–89, 2 figs. [Lep.]

419.—Buchholtz, C. Untersuchungen an der Libellen-Gattung *Calopteryx*-Leach unter besonderen Berücksichtigung ethologischer Fragen. Z. Tierpsychol., Berlin **8** 1951 pp. 273–293, 23 figs. [Odon.]

420.—Buchholz, K. F. Zur Paarung und Eiablage der Agrioninen (Odonata). Bonn. zool. Beitr. **1** (1950) 1951 pp. 262–275, 5 figs.

421.—Buchholz, K. F. Ueber den Häutungsort der Larven von *Aeschna cyanea* Müll. (Odonata). Bonn. zool. Beitr. **2** 1951 p. 184.

422.—Buchli, H. Les potentialités évolutives des castes chez le *Reticulitermes* de saintonge (Rhinotermitidae). C.R. Acad. Sci., Paris **233** 1951 pp. 206–208. [Isopt.]

423.—Buckell, E. R. Records of bees from British Columbia : Bombidae. Proc. ent. Soc. Br. Columbia, Victoria **47** 1951 pp. 7–24, 1 fig.

Buddenbrock, W. von *see* Faust & Buddenbrock.

424.—Bugbee, R. E. New and described parasites of the genus *Eurytoma* Illiger from rose galls caused by species of the Cynipid genus *Diplolepis* Geoffroy (Hymenoptera : Eurytomidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 213–261, 25 figs., 5 maps.

425.—Bugbee, R. E. A new genus of two previously described and two new species of the family Eurytomidae bred from Cynipid and Dipterous hosts. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 37–45, 3 figs., 1 map. [Hym.]

426.—[Bukovskiĭ, V. I.] New species of fungus flies (Diptera, Fungivoridae) from the Crimea. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 405–409, 7 figs.

Burdette, W. J. *see* Herskowitz & Burdette.

427.—Burgeff, H. Die Meeralpengrenze der Zygaenen (Lep.) eine mit Hilfe der Populationsanalyse der Arten der Gattung *Zygaena* (Lepidoptera) durchgeführte Untersuchung über die Lokalisation und die Bedeutung geographischer Rassen in ihrem Zusammenhang mit der Eiszeit. Biol. Zbl., Leipzig **70** 1951 pp. 1–23, 14 figs.

428.—Burgeon, L. & **Basilewsky,** P. Les insectes du Congo belge. Encycl. Congo belge, Brussels [?1951] pp. 181–258, 12 pls. (4 col.) many figs.

Burges, H. D. *see* Howe & Burges.

429.—Burgess, R. W. The life history and breeding habits of the eye gnat, *Hippelates pusio* Loew, in the Coachella Valley, Riverside County, California. Amer. J. Hyg., Baltimore **53** 1951 pp. 164–177. [Dipt.]

430.—Burla, H. Systematik, Verbreitung und Oekologie der *Drosophila*-Arten der Schweiz. Rev. suisse Zool., Geneva **58** 1951 pp. 23–175, 46 figs. [Dipt.]

431.—Burmann, K. Ein Versuch zur schematischen Darstellung der Höhenverbreitung der Nordtiroler Larentien (Lepidoptera, Geometridae). (Schluss.) Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 104–107.

432.—Burmann, K. *Ornix pfaffenzelleri* Frey in Nordtirol (Lepidoptera, Gracilariidae). Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 145–146.

433.—Burmann, K. Lepidopteren auf Moränen im Nordtiroler Zentralalpengebiet. Ent. Z., Frankfurt a. M. **60** 1951 pp. 163–166, 172–176, 181–182.

434.—Burmann, K. *Crambus luctiferellus* Hb. und *luctuellus* H.S.—zwei gute Arten (Microlepidoptera, Pyralidae). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 137–157, 1 pl. 2 figs.

435.—Burmann, K. Die Veränderlichkeit von *Symmoca signella* Hb. (Gelechiidae). Z. Lepid., Krefeld **1** 1951 pp. 181–184.

436.—Burmann, K. Die Raupe und Puppe von *Oxyptilus kollari* Stt. (Microlepidoptera, Pterophoridae). Z. wien. ent. Ges., Vienna **35** 1950 pp. 146–147, 1 fig.

437.—Burmann, K. Ein kleiner Beitrag zur Kenntnis der Verbreitung von *Exapate duratella* Heyd. (Microlepidoptera, Tortricidae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 9–11.

438.—Burmann, K. Neue Formen von *Larentia scripturata* Hb. ssp. *dolomitana* Habich aus Nordtirol (Lepidoptera, Geometridae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 60–61, 1 pl.

439.—Burnett, G. F. Field observations on the behaviour of the red locust (*Nomadacris septemfasciata* Serville) in the solitary phase. Anti-Locust Bull., London no. 8 1951 36 pp. 8 figs. [Orth.]

440.—Burnett, G. F. Observations on the life-history of the red locust, *Nomadacris septemfasciata* (Serv.) in the solitary phase. Bull. ent. Res., London **42** 1951 pp. 473–490, 5 figs. [Orth.]

441.—Burnett, T. Effects of temperature and host density on the rate of increase of an insect parasite. Amer. Nat., New York **85** 1951 pp. 337–352, 5 figs.

Burns, A. N. *see* Barrett & Burns.

442.—Burr, M. On the Dermaptera of Palestine. Ent. Rec., London **63** 1951 pp. 121–122.

443.—Burschel, P. & **Vité,** P. Neue Beobachtungen über die Buchenblattbaumlaus *Phyllaphis fagi* L. (Hem., Aphididae). Forstwissenschaftl. Centralbl., Berlin **70** 1951 pp. 181–186, 6 figs.

444.—Burtt, E. The ability of adult grasshoppers to change colour on burnt ground. Proc. R. ent. Soc. London (A) **26** 1951 pp. 45–48, 1 pl.

445.—Burtt, E. Occurrence of fully-winged forms in usually brachypterous African Pyrgomorphinae (Orthoptera). Proc. R. ent. Soc. London (A) **26** 1951 pp. 64–66, 1 pl.

446.—Burtt, E. & **Jackson,** C. H. N. Illustrations of tsetse larvae. Bull. ent. Res., London **41** 1951 pp. 523–527, 12 figs. [Dipt.]

447.—Busch, T. *Anilasta vulgaris* Tschek als Parasit des grossen Kohlweisslings (*Pieris brassicae* L.). Ent. Z., Frankfurt a. M. **61** 1951 pp. 97–100, 2 figs. [Hym., Lep.]

448.—Busnel, R. G. Sur la nature et le dosage du pigment brun violet de la séreuse de l'oeuf de *Bombyx mori*. Rev. Ver à Soie, Alès **1** 1949 pp. 54–58. [Lep.]

Busnel, R. G. *see* Drilhon & Busnel; Drilhon, Busnel & Vago; Portier & Busnel.

449.—Busvine, J. R. Insects and hygiene. The biology and control of insect pests of medical and domestic importance in Britain. London, Methuen & Co. Ltd. 1951 xiv+482 pp. 1 frontisp. 57 figs.

Butani, D. K. *see* Trehan & Butani.

450.—Butler, C. G. The importance of perfume in the discovery of food by the worker honeybee (*Apis mellifera* L.). Proc. roy. Soc., London (B) **138** 1951 pp. 403–413. [Hym.]

451.—Butt, F. H. Feeding habits and mechanism of the Mexican bean beetle. Mem. Cornell agric. Exp. Sta., Ithaca no. 306 1951 32 pp. 46 figs. [Col.]

Butts, J. S. *see* Hoffman, Lindquist & Butts.

452.—Buzzati-Traverso, A. Prolificità e selezione. Genetica Iberica, Madrid **2** 1950 pp. 175–184, 1 fig.

453.—Buzzati-Traverso, A. Genetica di popolazioni in *Drosophila* V–IX. Mem. Ist. ital. Idrobiol. de Marchi, Milan **4** 1947 pp. 1–40, 12 figs., 41–64, 2 figs., 65–86, 10 figs., 87–106, 2 figs., 107–114. [Dipt.]

454.—Buzzati-Traverso, A. Su alcuni casi di evoluzione in bottiglia. Mem. Ist. ital. Idrobiol. de Marchi, Milan **4** 1947 pp. 115–120. [Dipt.]

455.—Byars, L. F. A new fungus-growing ant from Arizona (Hymenoptera, Formicidae). Proc. ent. Soc. Washington **53** 1951 pp. 109–111, 2 figs.

456.—Byers, C. F. Some notes on the Odonata fauna of Mountain Lake, Virginia. Ent. News, Lancaster, Pa. **62** 1951 pp. 164–167.

457.—Cabido Garcia, R. Contribuição para o estudo da sistemática morfologia, biologia e ecologia da cochonilha amarela (*Chrysomphalus dictyospermi* Morg.). Bol. Junta nac. Frutas, Lisbon **9** 1949 pp. 374–465, 33 figs.

458.—Cachan, P. Les termites de Madagascar. Premier supplément. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 1–18, 30 figs. [Isopt.]

459.—Caldwell, J. S. New Cixiidae from southern North America with notes on others. (Homoptera: Fulgoroidea). Ohio J. Sci., Columbus **51** 1951 pp. 34–36.

Calet, C. *see* Charconnet-Harding & Calet.

460.—Callan, E. McC. Biology of *Dinurothrips hookeri* Hood (Thysanoptera, Thripidae). Rev. Ent., Rio de Janeiro **22** 1951 pp. 357–362.

Callejas *see* Torre y Callejas.

461.—Cameron, E. On the identity of an Inchneumonid parasite of *Hepialus lupulinus* (L.). Bull. ent. Res., London **41** 1951 p. 637. [Hym., Lep.]

462.—Cameron, M. Three new Staphylinidae from West Africa. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 126–128. [Col.]

463.—Cameron, M. Results of the Armstrong College Expedition to Siwa Oasis (Libyan Desert), 1935, under the leadership of Prof. J. Omer-Cooper. Staphylinidae (Coleoptera). Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 279–284.

464.—Cameron, M. New species of African Staphylinidae. Part II. J.E. Afr. nat. Hist. Soc., Nairobi **20** 1951 pp. 398–407. [Col.]

465.—Cameron, M. New species of Staphylinidae (Col.) from Angola Paederinae. Publ. cult. Comp. Diam. Angola, Lisbon no. 11 1951 pp. 17–29.

466.—Campbell, J. L. An experiment in marking migratory butterflies. Entomologist, London **84** 1951 pp. 1–6.

467.—Campbell, R. W. H. A preliminary statistical study of *Anopheles gambiae* Giles, based on maxillary indices. Bull. ent. Res., London **42** 1951 pp. 647–658, 7 figs. [Dipt.]

Campos Seabra, C. A. *see* Costa Lima, Campos Seabra & Hathaway.

Cañamares *see* Torres Cañamares.

468.—Capener, A. L. Sexually dimorphic Membracidae from southern Africa. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 152–164, 50 figs. [Hem.]

469.—Capra, F. Il *Troglophilus cavicola* Kollar in Lombardia (Orthop. Rhaphidophoridae). Mem. Soc. ent. ital., Genoa **30** 1951 pp. 141–144, 1 map.

470.—Carayon, J. Observations sur l'accouplement, la ponte et l'éclosion chez des Hémiptères Hénicocéphalidés de l'Afrique tropicale. Bull. Mus. Hist. nat., Paris (2) **22** (1950) 1951 pp. 739–745, 3 figs.

471.—Carayon, J. Ecologie et régime alimentaire d'Hémiptères Hénicocéphalidés africains. Bull. Soc. ent. France, Paris **56** 1951 pp. 39–44, 1 fig.

472.—Carayon, J. Procédé d'étude anatomique de certains organes internes chez les insectes desséchés. Feuille Nat., Paris (N.S.) **6** 1951 pp. 89–93, 2 figs.

473.—Carayon, J. Les organes génitaux mâles des Hémiptères Nabidae. Absence de symbiontes dans ces organes. Proc. R. ent. Soc. London (A) **26** 1951 pp. 1–10, 3 figs.

Carè, E. *see* Grandori, R. & L. & Carè.

474.—Carl, G. C., **Guiguet,** C. J. & **Hardy,** G. A. Biology of the Scott Island group, British Columbia. Rep. Prov. Mus. nat. Hist. Anthrop., Victoria, B.C. **1950** 1951 pp. B.21–B.63, 17 figs. [Insects pp. B.47–B.48.]

474A.—Carne, P. B. Preservation techniques for Scarabaeid and other insect larvae. Proc. Linn. Soc. N.S.W., Sydney **76** 1951 pp. 26–30.

475.—Carpenter, F. M. Studies on carboniferous insects from Commmentry, France : Part II. The Megasecoptera. J. Paleont., Oklahoma **25** 1951 pp. 336–355, 1 pl. 11 figs.

476.—Carpenter, F. M. The structure and relationships of *Oliarces* (Neuroptera). Psyche, Cambridge, Mass. **58** 1951 pp. 32–40, 1 pl. 3 figs.

477.—Carpenter, G. D. H. *Pseudacraea eurytus hobleyi,* Neave, its forms and its models on Bugalla Island, Lake Victoria, with other members of the same combination. Trans. ent. Soc. London **1913** 1914 pp. 606–645, 3 pls. [Lep.]

478.—Carpenter, G. D. H. *Pseudacraea boisduvali,* Doubl., and its models, with especial reference to Bugalla Island. Trans. ent. Soc. London **1913** 1914 pp. 646–655, 2 pls. [Lep.]

479.—Carpenter, G. D. H. The inheritance of small variations in the pattern of *Papilio dardanus,* Brown. Trans. ent. Soc. London **1913** 1914 pp. 656–666, 2 pls. [Lep.]

Carpenter, S. J. *see* Galindo, Carpenter & Trapido.

480.—Carpentier, F. Sauterelles de Belgique. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 100–105. [Orth.]

481.—Carpentier, F. & **Barlet,** J. Les sclérites pleuraux du thorax de *Campodea* (Insectes, Aptérygotes). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 47, 7 pp. 1 pl. [Thysanura.]

483.—Carson, H. L. Breeding sites of *Drosophila pseudoobscura* and *Drosophila persimilis* in the transition zone of the Sierra Nevada. Evolution, Lancaster, Pa. **5** 1951 pp. 91–96, 15 figs. [Dipt.]

484.—Carson, H. L. & **Stalker,** H. D. Natural breeding sites for some wild species of *Drosophila* in the eastern United States. Ecology, Lancaster, Pa. **32** 1951 pp. 317–330, 4 figs. [Dipt.]

485.—Cartwright, O. L. New synonymy in the Aphodiini of the United States. Coleopt. Bull., Washington, D.C. **5** 1951 pp. 29–30.

486.—Caruel, M. Révision des formes et aberrations du catalogue des Rhopalocères. Rev. franç. Lép., Paris **13** 1951 pp. 84–87, 117–121.

487.—Carvalhaes, J. Significado ecológico do mimetismo nos insectos (conclusão). Brotéria, Lisbon Ci. nat. **20** 1951 pp. 49–64.

Carvalho, E. L. de *see* Luna de Carvalho.

488.—Carvalho, J. C. M. Neotropical Miridae. XL, XLI. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 168–173, 2 figs., 294–304, 4 figs.

489.—Carvalho, J. C. M. Mirídios neotropicais, XXXIX ; sôbre duas espécies novas do Brasil (Hemiptera). Comment. biol., Helsingfors **12** 1951 no. 7 pp. 1–6, 5 figs.

490.—Carvalho, J. C. M. Neotropical Miridae. XLV. Entomologist, London **84** 1951 pp. 232–233, 1 fig. [Hem.]

491.—Carvalho, J. C. M. Neotropical Miridae, XLIV : On a historical collection made by P. W. Lund and J. T. Reinhardt in Brazil (Hemiptera). Ent. Medd., Copenhagen **26** 1951 pp. 130–136, 2 figs.

492.—Carvalho, J. C. M. Five new genera and eleven new species of African Miridae (Hemiptera). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 100–115, 6 figs.

493.—Carvalho, J. C. M. & **China,** W. E. Neotropical Miridae, XLII : On the Eccritotarsoid complex (Hemiptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 672–697, 8 figs.

494.—Carvalho, J. C. M. & **China,** W. E. Neotropical Miridae, XLIII. Entomologist, London **84** 1951 pp. 113–116, 1 fig.

Carvalho, J. C. M. *see* China & Carvalho.

495.—Cary, M. M. Distribution of Sphingidae (Lepidoptera : Heterocera) in the Antillean-Caribbean region. Trans. Amer. ent. Soc., Philadelphia **77** 1951 pp. 63–129, 1 map, 2 charts.

Casimir, J. *see* Bernard & Casimir.

496.—Caspers, H. Quantitative Untersuchungen über die Bodentierwelt des Schwarzen Meeres im bulgarischen Küstenbereich. Arch. Hydrobiol., Stuttgart **45** 1951 pp. 1–192, 66 figs. [Dipt.]

497.—Caspers, H. Rhythmische Erscheinungen in der Fortpflanzung von *Clunio marinus* (Dipt. Chiron.) und das Problem der lunaren Periodizität bei Organismen. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 415–594, 4 pls. 6 fldg. pls. 14 figs.

498.—Caspers, H. Biozönotische Untersuchungen über die Strandarthropoden im bulgarischen Küstenbereich des Schwarzen Meeres. Hydrobiologia, The Hague **3** 1951 pp. 131–193, 15 figs. [Insects pp. 140–160.]

499.—Caspers, H. Die tierische Lebensgemeinschaft in einem Röhricht der Unterelbe. Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 41–49.

500.—Castel-Branco, A. J. F. & **Tordo,** G. C. Instruções para colheita e acondicionamento de insectos. An. Junta Invest. colon., Lisbon **5** tomo 6 1950 pp. 49–63, 9 figs.

501.—Castellani, O. Quarto contributo alla conoscenza della fauna odonatologica del Lazio e nota su un'importante catture in Sardegna. Boll. Ass. romana Ent. **5** (1950) 1951 pp. 21–27.

502.—Castiglioni, M. C. La grandezza delle cornee di *Drosophila melanogaster* Meig. studiata sperimentalmente col trapianto. R.C. Ist. lombardo, Milan Cl. Sci. mat. nat. (3) **13** 1949 pp. 215–224, 4 figs. [Dipt.]

503.—Castiglioni, M. C. La distribuzione dei pigmenti nell'occhio di allele di "white" e loro compounds in *Drosophila melanogaster*. Sci. genet., Torino **4** 1951 pp. 57–60, 2 pls. [Dipt.]

Castillo *see* Leví Castillo.

Castro, M. *see* Viamonte & Castro.

Castro, M. P. *see* Del Ponte, Castro & García.

504.—Cavro, E. Catalogue des Hyménoptères du département du nord et régions limitrophes. II. Tenthrédoïdes. Bull. Soc. ent. N. France, Paris Suppl. no 58 1951 66 pp.

505.—Cazier, M. A. The genera *Chrysina* and *Plusiotis* of North Central Mexico (Coleoptera, Scarabaeidae). Amer. Mus. Novit., New York no. 1516 1951 8 pp. 6 figs.

506.—Cazier, M. A. The Buprestidae of the Bahama Islands, British West Indies (Coleoptera, Buprestidae). Amer. Mus. Novit., New York no. 1517 1951 9 pp. 1 fig.

507.—Cazier, M. A. The Buprestidae of North Central Mexico (Coleoptera). Amer. Mus. Novit., New York no. 1526 1951 56 pp. 51 figs.

Cerqueira, N. L. *see* Kumm & Cerqueira.

508.—Cerruti, M. Staphylinidae (Coleoptera) del Punjab (India settentrionale) raccolti dal colonnello Cesare Lomi. Riv. Biol. colon., Rome **10** (1949–1950) 1951 pp. 15–22, 2 figs.

Cesaro, R. *see* La Greca & Cesaro.

509.—Chadwick, C. E. Changes in the nomenclature of certain insects and Arachnids. List 1. Vict. Nat., Melbourne **67** 1951 pp. 227–230.

510.—Chadwick, L. E. Stroke amplitude as a function of air density in the flight of *Drosophila*. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 15–27, 4 figs. [Dipt.]

Chadwick, L. E. *see* Dethier & Chadwick.

511.—Chambers, V. H. The larva and food-plant of *Rhogogaster chambersi* Benson (Hym., Tenthredinidae). Ent. mon. Mag., London **87** 1951 pp. 202–205, 2 figs.

512.—Champion, G. C. Notes on various Central American Coleoptera : supplement. Trans. ent. Soc. London **1913** 1914 pp. 667–670.

513.—Chandler, L. The Bombidae of Indiana. Proc. Indiana Acad. Sci., Indianapolis **60** (1950) 1951 pp. 167–177, 2 figs. [Hym.]

Chandy Kurian *see* Rao & Chandy Kurian.

514.—Chang, Peh-I. The action of DDT on the golgi bodies in insects nervous tissue. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 311–326, 1 pl. 1 fig.

515.—Chang, Pen-Hua. Three species of sand flies (Ceratopogonidae, Diptera) from Szechuan. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 280–285, 15 figs.

516.—Chang, Shih L. & **Richart,** jr., F. E. Studies on Anopheline larvae. I. The anatomy and function of the so-called " notched organs " of Nuttall and Shipley on the thorax of larvae of *Anopheles quadrimaculatus*. J. nat. Malar. Soc., Savannah **10** 1951 pp. 287–292, 4 figs. [Dipt.]

Chang, Shih L. *see* Fair, Chang & Richart.

517.—Chang, S. M. & **Yu,** C. S. Observations on the behaviour of two Lamellicorn beetles in Lientang. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1950 pp. 186–194, 1 fig. [Col.]

518.—Chao, Hsiu-fu. A note on the persistence of a much-neglected primary antenodal cross vein in the order Odonata. Ent. News, Lancaster, Pa. **62** 1951 pp. 103–105.

519.—Chapman, E. Observations on the Moroccan locust (*Dociostaurus maroccanus* Thunberg) in Cyprus, 1950. Vegetation of locust habitats. Anti-Locust Bull., London no. 10 1951 pp. 2–18, 1 map. [Orth.]

520.—Charconnet-Harding, F. & **Calet,** C. Teneur en trois vitamines du groupe B et en azote total de *Drosophila melanogaster* en fonction des stades du développement. C.R. Acad. Sci., Paris **233** 1951 pp. 759–761. [Dipt.]

Charles *see* Le Charles.

Chase, H. B. *see* Luce, Quastler & Chase.

Chatterjee, N. C. *see* Pant & Chatterjee.

Chatterjee, S. N. *see* Mukerji & Chatterjee.

521.—Chatters, R. M. & **Schlehuber,** A. M. Mechanics of feeding of the greenbug (*Toxoptera graminum* Rond.) on *Hordeum, Avena,* and *Triticum.* Tech. Bull. Oklahoma agric. exp. Sta., Stillwater no. 40 1951 18 pp. 13 figs. [Hem.]

Chaudhuri *see* Ray-Chaudhuri.

522.—Chaudonneret, J. La morphologie céphalique de *Thermobia domestica* (Packard) (Insecte aptérygote thysanoure). Ann. Sci. nat., Paris Zool. (11) **12** pp. 145–256 (1950), pp. 257–302 (1951), 72 figs.

523.—Chauvin, R. Méthodes de mésures physiques et méthodes de prélèvement en écologie entomologique. Année biol., Paris **55** 1951 pp. 313–323, 1 pl.

524.—Chauvin, R. Sur les facteurs responsables de l'attraction que manifestent des Acridiens pour le son. Bull. Off. nat. Anti-acrid., Paris no. 1 1951 pp. 15–18, 1 fig.

525.—Chauvin, R. & **Mentzer,** C. Contribution à l'étude des substances naturelles et de synthèse répulsives pour les. Acridiens. Bull. Off. nat. Anti-acrid., Paris no. 1 1951 pp. 5–14. [Orth.]

Cheema *see* Pratap Singh Cheema.

526.—Cheesman, L. E. A collection of *Polistes* from Papuasia in the British Museum. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 982–993. [Hym.]

527.—Chen, P. S. A comparative study of the oxygen consumption in the three lethal mutants "ltr", "lgl", and "lme" of *Drosophila melanogaster.* Z. indukt. Abstamm.- u. VererbLehre, Berlin **84** 1951 pp. 38–70, 9 figs. [Dipt.]

528.—[Chereshnev, N. A.] Biological peculiarities of the gadfly *Gastrophilus pecorum* Fabr. (Diptera, Gastrophilidae). [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **77** 1951 pp. 765–768, 1 fig.

529.—[Chernova, O. A.] Contribution to the knowledge of the genus *Palingenia* Burm. (Ephemeroptera, Palingeniidae). [In Russian.] Ent Obozr., Moscow **30** 1949 pp. 303–307, 7 figs.

530.—[Chernova, O. A.] Données nouvelles sur la morphologie et la fecondité des mouches parasites d'*Eurygaster integriceps.* [In Russian; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 67–74, 6 figs. [Hem.]

531.—[Chernovskiĭ, A. A.] *Halliella taurica* Tshernovskij, sp. n.—an abundant species of Tendipedidae (Diptera) in salt lakes of the Crimea. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 250–251.

532.—Chiarelli de Gahan, A. El género *Dyspteris* y sus representantes argentinos (Lep. Geometr.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 19–31, 6 figs.

533.—[Chikalo, I. I.] The thermostability of the catalyst as indicator of the resistance of the silkworm to high temperature. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **16** 1951 pt. 5 pp. 39–44.

534.—China, W. E. *Placotettix taeniatifrons* Kirschbaum (Hem., Cicadellidae, Deltocephalinae) new to Britain. Ent. mon. Mag., London **87** 1951 pp. 60–62, 1 fig.

535.—China, W. E. A note on Matsumura's recent paper on the Palaearctic Cercopoidea (Homoptera). Ent. mon. Mag., London **87** 1951 p. 279.

536.—China, W. E. Corrections to the check list of the British Hemiptera-Homoptera. Ent. mon. Mag., London **87** 1951 p. 280.

537.—China, W. E. & **Carvalho,** J. C. M. A new ant-like Mirid from Western Australia (Hemiptera, Miridae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 221–225, 2 figs.

538.—China, W. E. & **Carvalho,** J. C. M. A remarkable genus and species of Cylapinae from British Guiana (Hemiptera, Miridae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 289–292, 1 fig.

539.—China, W. E. & **Carvalho,** J. C. M. A new genus of Hallodapini and two new species of the genus *Nicostratus* Distant (Miridae, Phylinae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1120–1125, 2 figs.

540.—China, W. E. & **Carvalho,** J. C. M. Four new species representing two new genera of Bryocorinae associated with cacao in New Britain (Hemiptera, Miridae). Bull. ent. Res., London **42** 1951 pp. 465–471, 4 figs.

541.—China, W. E. & **Miller,** N. C. E. The 3rd Danish Expedition to Central Asia. Zoological results. 3. Hemiptera (Insecta) from Afghanistan. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **112** 1950 pp. 225–234, 3 figs.

China, W. E. *see* Carvalho & China.

542.—Chopard, L. Un remarquable ensifère de Patagonie. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 475–479, 7 figs. [Orth.]

543.—Chopard, L. Orthoptéroides. Faune de France **56** 1951 [3+] 359 pp. 532 figs. Paris, Lechevalier.

544.—Chopard, L. Notes sur les Orthopteroides de Madagascar. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 143–158, 10 figs.

545.—Chopard, L. A revision of the Australian Grylloidea. Rec. S. Aust. Mus., Adelaide **9** 1951 pp. 397–533, 89 figs. [Orth.]

546.—Chopard, L. Contribution à l'étude des Gryllides du Congo belge. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 297–312, 5 figs. [Orth.]

547.—Chou, Io. Entomologia sinica. Systematica et applicata. [In Chinese.] Ent. sinica, Shensi **4** 1950 fasc. 1 Protura-Mantodea; **5b** 1951 fasc. 3 Embiodea-Anoplura many figs.

548.—Chow, C. Y. & **Mattingly,** P. F. The male genitalia and early stages of *Aëdes* (*Finlaya*) *albocinctus* Barraud and *Aëdes* (*Finlaya*) *albotaeniatus* var. *mikiranus* Edwards with some notes on related species. Proc. R. ent. Soc. London (B) **20** 1951 pp. 80–90, 6 figs. [Dipt.]

549.—Christiansen, K. A. Notes on Alaskan Collembola. I. A new genus and species of the family Isotomidae. Psyche, Cambridge, Mass. **58** 1951 pp. 24–31, 1 pl. 1 fig.

550.—Christof, D. Sur la méthode pour établir les dimensions et la forme des cocons du ver à soie—*Bombyx mori*. [In Bulgarian with French summary.] Rev. Inst. Rech. sci. Agric. For., Belgrade **18** 1950 pp. 47–68. [Lep.]

Christophers, Sir S. R. *see* Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

Chrystal, R. N. *see* Barnes, H. F.

551.—Chu, H. F. On the identity of the wheat midge in China, *Sitodiplosis mosellana* (Gehin), with remarks on its life history (Diptera, Cecidomyidae). Ann. ent. sinici, Peking **1** 1950 pp. 223–233, 4 figs.

552.—Chu, H. F. & **Kao,** C. S. A commentary on the insects mentioned in the Pen Ts'ao Kang Mu. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1950 pp. 234–262, 19 figs.

553.—Chu, H. F. & **Wang,** L. Y. Life history of the field cricket, *Gryllus testaceus* Walker (Orthoptera, Gryllidae) and its control. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 291–307, 22 figs.

554.—[Chugunin, Ya. V.]. Simultaneousness in the mass appearance of different caterpillars of the leaf-eating complex of insects. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 63–65. [Lep.]

555.—Chûjô, M. Description of a new Chrysomelid-beetle from Japan. Insecta matsum., Sapporo **17** 1951 pp. 119–120, 1 fig. [Col.]

556.—Chûjô, M. A taxonomic study on the Chrysomelidae (Insecta–Coleoptera) of Formosa. Parts I–III. Tech. Bull. Kagawa-ken agric. Coll. 1951 **2** pp. 71–120, 25 figs.; **3** pp. 43–55, 13 figs., 57–71, 12 figs.

557.—Chûjô, M. Chrysomelid beetles of Shikoku, Japan (II) (Coleoptera). Trans. Shikoku ent. Soc. **2** 1951 pp. 31–48, 4 figs.

558.—[Chumakova - Safronovich, B. M.] The effect of nutrition during the larval and adults stages on the fertility of predatory insects. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 225–234, 2 figs.

559.—Ciampolini, M. Osservazioni sull'etologia della *Pseudonapomyza dianthicola* Venturi (Diptera Agromyzidae). Redia, Florence **34** 1949 pp. 289–301, 5 figs.

560.—Clark, A. H. Butterflies of the Marshall Islands (Lepidoptera). Proc. ent. Soc. Washington **53** 1951 pp. 43–44.

561.—Clark, A. H. & L. F. The butterflies of Virginia. Smithson. misc. Coll., Washington **116** 1951 no. 7, 239 pp. 30 pls. 1 col. frontisp. 1 map. [Lep.]

562.—Clark, A. M. & **Mitchell,** C. J. Gene dosage relations for haploids and diploids of *Habrobracon*. Genetics, New York **36** 1951 pp. 185–198, 1 pl. [Hym.]

563.—Clark, A. M. & **Mitchell,** C. J. Radiosensitivity of haploid and diploid *Habrobracon* during pupal development. J. exp. Zool., Philadelphia **117** 1951 pp. 489–498, 3 figs. [Hym.]

564.—Clark, G. C. The life-history of *Crudaria leroma*. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 127–132, 23 figs. [Lep.]

565.—Clark, J. The Formicidae of Australia. Volume I. Subfamily Myrmeciinae. Melbourne, Commonw. sci. industr. Res. Org. Australia 1951 230 pp. 193 figs. [Hym.]

566.—Clark, W. K. Ecological life history of the armadillo in the eastern Edwards Plateau region. Amer. Midl. Nat., Notre Dame **46** 1951 pp. 337–358, 3 figs.

567.—Clarke, J. F. G. A new genus and species of North American Olethreutidae (Lepidoptera : Laspeyresiinae). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 46–47, 1 pl.

568.—Clarke, J. F. G. New species of Gelechiidae from Argentina (Lepidoptera). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 140–142, 299, 6 figs.

569.—Clarke, J. F. G. New species of Olethreutidae from Argentina (Lepidoptera). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 296–299, 13 figs.

570.—Classey, E. W. & **Robinson,** H. S. Mercury vapour light-traps. Ent. Gaz., London **2** 1951 pp. 265–266.

571.—Clausen, C. P. The time factor in biological control. J. econ. Ent., Menasha **44** 1951 pp. 1–9.

572.—Clausen, M. B. & **Richards,** A. G. Studies on Arthropod cuticle. VI. Intracellular and extracellular formation of cuticle in the developing posterior spiracular chamber of a blowfly larva (*Phormia regina*). J. Morph., Philadelphia **89** 1951 pp. 199–215, 3 pls. [Dipt.]

573.—Clay, T. Systematic notes on the Piaget collections.—Parts II, III. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 173–182, 1159–1168, 1 pl. 15 figs. [Malloph.]

574.—Clay, T. An introduction to a classification of the Avian Ischnocera (Mallophaga) : Part I. Trans. R. ent. Soc. London **102** 1951 pp. 171–194, 1 pl., 26 figs.

575.—Clay, T. & **Hopkins,** G. H. E. The early literature on Mallophaga. Part II, 1763–1775. Bull. Brit. Mus. (Nat. Hist.), London Ent. **2** 1951 pp. 1–37, 3 pls. 45 figs.

576.—Clements, A. N. A revision of *Diparopsis* Hmps. (Agrotidae, Lepidoptera). Bull. ent. Res., London **42** 1951 pp. 491–497, 12 figs.

577.—Clements, A. N. On the urticating properties of adult Lymantriidae. Proc. R. ent. Soc. London (A) **26** 1951 pp. 104–108. [Lep.]

578.—Clements, A. N. The use of the prosternum in classifying Asilidae (Diptera). Proc. R. ent. Soc. London (B) **20** 1951 pp. 10–14, 5 figs.

579.—Cobben, R. H. Over duikers en muzikanten onder water. Levende Natuur, Amsterdam **54** 1951 pp. 115–120, 126–130, 9 figs. [Hem.]

580.—Cobos, A. Materiales para el catálogo de los Coleópteros de España : Familias Buprestidae y Elateridae.—Especies de la provincia de Almería, I. Bol. Soc. esp. Hist. nat., Madrid **48** 1950 Secc. Biol. pp. 151–157.

581.—Cockayne, E. A. Two new subspecies of British Geometridae (Lep.). Entomologist, London **84** 1951 pp. 154–155.

582.—Cockayne, E. A. Aberrations of British Macrolepidoptera. Entomologist, London **84** 1951 pp. 241–245, 1 pl.

583.—Cockayne, E. A. The major peroneural defect in *Saturnia pavonia* L. Ent. Gaz., London **1** 1950 pp. 223–224, 1 pl.

584.—Cockayne, E. A. Aberrations of British Macrolepidoptera. Ent. Rec., London **63** 1951 pp. 30–33, 1 pl., 158–164, 1 pl., 229–233, 1 pl.

585.—Cockayne, E. A. Aberrations of *Abraxas grossulariata* Linnaeus (Lep. Geom.). Ent. Rec., London **63** 1951 pp. 102–106, 1 pl.

586.—Cockayne, E. A. The genetics of *Cleora cinctaria* Schiffermüller ab. *submarmoraria* Fuchs and ab. *schulzei* Heinrich. Ent. Rec., London **63** 1951 pp. 126–129, 1 pl., errata p. 260. [Lep.]

587.—Cockayne, E. A. The genetics of *Cleora repandata* Linnaeus, ab. *conversaria* Hübner, and ab. *mendeli* Williams. Ent. Rec., London **63** 1951 pp. 233–234. [Lep.]

588.—Cockayne, E. A. Aberrations of British Arctiidae. Ent. Rec., Bishops Stortford, Herts **63** 1951 pp. 262–266, 1 pl.

589.—Cockbill, G. F. Records of migrations of *Catopsilia florella* F. (Pieridae) from Southern Rhodesia, 1922–1950. Proc. R. ent. Soc. London (A) **26** 1951 pp. 113–128, 4 figs.

590.—Coiffait, H. Notes sur les Staphylinides. Rev. franç. Ent., Paris **18** 1951 pp. 104–115, 50 figs. [Col.]

591.—Colas, G. Note sur deux Carabiques (Col.) nouveaux de la faune française. Bull. Soc. ent. France, Paris **55** (1950) 1951 pp. 145–146.

592.—Colas-Belcour, J. & **Rageau,** J. Une puce nouvelle pour la faune française *Typhloceras poppei* Wagner. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 164–167, 2 figs. [Siphonapt.]

593.—Cole, A. C. Nesting activities of *Trachymyrmex* Forel (Hymenoptera : Formicidae) in east Tennessee. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 499–500.

594.—Cole, A. E. Insects from Bikini Atoll, Marshall Islands. J. Tenn. Acad. Sci., Nashville **26** 1951 pp. 246–248.

595.—Cole, L. C. The measurement of interspecific association. Ecology, Lancaster, Pa. **30** 1949 pp. 411–424, 2 figs.

Coll *see* Español Coll.

596.—Collenette, C. L. Some new species of Lymantriidae in the British Museum (Natural History). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1026–1040, 1 pl. [Lep.]

597.—Colless, D. H. The identity of the malaria vector, *A. leucosphyrus*. Indian J. Malariol., Calcutta **4** 1950 pp. 377–383. [Dipt.]

598.—Colless, D. H. New methods for mounting mosquito larvae. Indian J. Malariol., Calcutta **5** 1951 pp. 183–186. [Dipt.]

599.—Collin, J. E. A new Arctic species of *Fucellia* (Diptera Anthomyidae) with maculated wings. Ent. Medd., Copenhagen **26** 1951 pp. 187–190, 2 figs.

600.—Collin, J. E. *Phaonia laetabilis* sp. n. with notes on some other related Anthomyiidae (Diptera). Ent. Rec., London **63** 1951 pp. 1–5.

601.—Collin, J. E. The British species of the genus *Palloptera* Fallén (Diptera). Ent. Rec., London **63** 1951 sep. pp. 1–6.

602.—Collin, J. E. British Helomyzidae (Diptera). Additions and corrections. J. Soc. Brit. Ent., Bournemouth **4** 1951 pp. 37–39.

603.—Collin, J. E. *Lispocephala serena* sp. n. (Diptera, Anthomyidae). J. Soc. Brit. Ent., Bournemouth **4** 1951 pp. 40–41.

604.—Collin, J. E. A new species of *Diadelops* Collin (Diptera : Anthomyzidae) from Fiji. Proc. R. ent. Soc. London (B) **20** 1951 pp. 47–48, 1 fig.

605.—Collyer, E. The separation of *Conwentzia pineticola* End. from *Conwentzia psociformis* (Curt.) and notes on their biology. Bull. ent. Res., London **42** 1951 pp. 555–564, 1 pl. 4 figs. [Neur.]

606.—Colombo, G. Osservazioni quantitative sulle variazione della lunghezza dei cromosomi nella mitosi e nella meiosi. Caryologia, Pisa **4** 1951 pp. 47–57, 1 pl. [Orth.]

607.—Colyer, C. N. Flies of the British Isles. In collaboration with C. O. Hammond. London & New York, F. Warne & Co. Ltd. 1951 383 pp. 103 pls. (48 col.) 17 figs. [Dipt.]

608.—Conci, C. Contributo alla conoscenza della speleofauna della Venezia Tridentina. Mem. Soc. ent. ital., Genoa **30** 1951 pp. 5–76, 2 figs.

609.—Conci, C. Missione biologica Sagan-Omo diretta dal Prof. Edoardo Zavattari. Mallophaga. Riv. Biol. colon., Rome **10** (1949–1950) 1951 pp. 77–82, 7 figs.

Conci, C. *see* Nielsen & Conci.

610.—Condal, L. F. Nuevos hallazgos en el jurásico superior del Montsech. Notas Com. Inst. geol. España, Madrid no. 23 1951 pp. 45–62, 3 pls. [Fossil.]

611.—Condamin, M. Mission P. L. Dekeyser et B. Holas au Libéria. Lépidoptères Rhopalocères. Bull. Inst. franç. Afrique noire, Dakar **13** 1951 pp. 788–797.

612.—Condé, B. Campodéidés du Natal. Ann. Transv. Mus., Pietermaritzburg **12** 1951 pp. 69–72, 1 fig. [Thysanura.]

613.—Condé, B. Protoures de la région de Banyuls-sur-Mer. Arch. Zool. exp. gén., Paris Notes et Rev. **87** 1951 pp. 169–176, 2 figs.

614.—Condé, B. Campodéidés de la grotte de La Balme. Bull. mens. Soc. linn. Lyon **20** 1951 pp. 6–7. [Thysanura.]

615.—Condé, B. *Campodea* (*C.*) *meinerti* Bagnall et ses affinités (Diploures Campodéides). Bull. mens. Soc. linn. Lyon **20** 1951 pp. 88–91, 7 figs. [Thysanura.]

616.—Condé, B. Les grandes divisions de l'ordre des Protoures. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 121–125.

617.—Condé, B. Campodéidés et Palpigrades de Basse-Egypte. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 211–216, 2 figs. [Thysanura.]

618.—Condé, B. Campodéidés de la région d'Orédon (Hautes-Pyrénées). Bull. Soc. ent. France, Paris **56** 1951 pp. 91–95, 4 figs. [Thysanura.]

619.—Condé, B. Protoures du Maroc. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 165–173, 2 figs.

620.—Condé, B. Campodéidés du Portugal récoltés par M.A. de Barros Machado. Mem. Estud. Mus. zool. Coimbra no. 204 1951 pp. 1–7, 1 pl. [Thysanura.]

621.—Condé, B. Nouvelles récoltes de Campodeidae en Côte d'Ivoire et Guinée française. Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 173–176. [Thysanura.]

622.—Consani, M. Formiche dell' Africa orientale I. Boll. Ist. Ent. Bologna **18** 1951 pp. 167–172, 4 figs. [Hym.]

623.—Cook, C. Some new dragonfly records for Kentucky (Odonata). Ent. News, Philadelphia, Pa. **62** 1951 pp. 181–188.

624.—Cook, P. M. Observations on giant fibres of the nervous system of *Locusta migratoria*. Quart. J. micr. Sci., London **92** 1951 pp. 297–305, 4 figs. [Orth.]

625.—Cooper, K. W. Compound sex chromosomes with anaphasic precocity in the male Mecopteran, *Boreus brumalis* Fitch. J. Morph., Philadelphia **89** 1951 pp. 37–57, 2 pls.

626.—Cooper, K. W. & **Bequaert,** J. Records and flower preferences of Masarid wasps (Hymenoptera : Vespidae). Psyche, Cambridge, Mass. **57** (1950) 1951 pp. 137–142.

627.—Cooreman, J. Suctoria (Aphaniptera). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 77 1951 pp. 7–8, 2 figs. [Siphonapt.]

628.—Cooreman, J. Contribution à l'étude des Suctoria du Congo belge. II. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 165–166. [Siphonapt.]

629.—Cooreman, J. Sur la présence au Congo belge du genre *Eoctenes* Kirkaldy (Polyctenidae, Cimicoidea). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 339–341, 1 fig.

Corbe, R. P. *see* Huard & Corbe.

630.—Corbet, P. S. The emergence and sex ratio of *Anax imperator* Leach (Odon., Aeshnidae). Ent. mon. Mag., London **87** 1951 pp. 176–179, 3 figs.

631.—Corbet, P. S. The development of the labium of *Sympetrum striolatum* (Charp.) (Odon., Libellulidae). Ent. mon. Mag., London **87** 1951 pp. 289–296, 24 figs.

Cordeiro, A. R. *see* Pavan, Cordeiro & others.

Corley, G. *see* Park, Auerbach & Corley.

632.—Corporaal, J. B. Some new and rare Cleridae from Java and Sumatra. Bijdr. Dierk., Leiden **28** 1949 pp. 97–105, 5 figs. [Col.]

633.—Cortés P., R. Sobre tres especies de taquínidos chilenos (Dipt., Tachinidae). Agric. tecn., Santiago, Chile **10** 1950 [1951] pp. 59–65.

634.—Cortés P., R. Nuevos géneros de Tachininae chilenos con cerdas facio-orbitales (Diptera Tachinidae). Rev. chil. Ent., Santiago **1** 1951 pp. 249–262.

Costa *see* Gomes Costa & Redaelli.

635.—Costa Lima, A. da. Agromyzidae (Diptera) of tomato and of orchidaceous plants. Arq. Inst. biol., São Paulo **20** 1950 pp. 35–38, 2 pls.

636.—Costa Lima, A. da. Uma nova espécie de *Aonidiella* (Homoptera, Coccoidea, Diaspididae). Arq. Inst. biol., São Paulo **20** 1951 pp. 173–176, 2 pls. 1 fig.

637.—Costa Lima, A. da. Sôbre alguns gorgulhos da subfamília Cryptorhynchinae (Col. Curculionidae). Dusenia, Curitiba **1** 1950 pp. 377–384, 1 pl.

638.—Costa Lima, A. da. Um novo *Compsobracon* (Hymenoptera, Braconidae). Dusenia, Curitiba **2** 1951 pp. 297–300, 1 pl.

639.—Costa Lima, A. da. Sôbre o macho de *Eriopyga lamptera* (Lepidoptera, Noctuidae, Hadeninae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 595–597, 3 figs.

640.—Costa Lima, A. da. Sôbre algumas vespas parasitas da família Ichneumonidae (Hymenoptera). Papéis avulsos Dep. zool. São Paulo **9** 1951 no. 25 pp. 367–374, 2 figs.

641.—Costa Lima, A. da., Campos Seabra, C. A. & Hathaway, C. R. Estudo dos Apiômeros (Hemiptera : Reduviidae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 273–442, 21 pls.

642.—Costantino, G. L'Anomala della vite (*Anomala ausonia* var. *neapolitana* Reitt.). Circ. Osserv. reg. Fitopat. Calabria, Catanzaro no. 6 1951 18 pp. 7 figs. [Col.]

Coutinho, J. O. *see* Pereira Barretto & Coutinho.

643.—Craig, R. & Olson, N. A. Rate of circulation of the body fluid in adult *Tenebrio molitor* Linnaeus, *Anasa tristis* (de Geer), and *Murgantia histrionica* (Hahn). Science, Lancaster, Pa. **113** 1951 pp. 648–650. [Col., Hem.]

644.—Creighton, W. S. Studies on Arizona ants. I. The habits of *Camponotus ulcerosus* Wheeler and its identity with *C. bruesi* Wheeler. Psyche, Cambridge, Mass. **58** 1951 pp. 47–64, 1 pl., 3 figs. [Hym.]

645.—Crèvecoeur, A. Nids et proies des Sphégides de Belgique (esquisse d'éthologie comparée). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 8–22. [Hym.]

646.—Crèvecoeur, A. Note sur la biologie d'*Eurytoma* (*Bruchophagus*) *ononis* Mayr (Hym. Chalcidoidea). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 148–150.

647.—Crichton, M. I. Some Hippoboscidae (Diptera) from Tristan da Cunha. Ent. mon. Mag., London **87** 1951 pp. 21–22.

648.—Crosskey, R. W. The morphology, taxonomy, and biology of the British Evanioidea (Hymenoptera). Trans. R. ent. Soc. London **102** 1951 pp. 247–301, 31 figs.

649.—Crowson, R. A. The classification of the families of British Coleoptera [contd.]. Ent. mon. Mag., London **87** 1951 pp. 117–128, 147–156, 22 figs.

650.—Csiki, E. Die Käferfauna des Radnaer Gebirges. [In Magyar with German summary.] Acta biol. Acad. Sci. hung., Budapest **2** 1951 pp. 119–168. [Col.]

651.—Cumber, R. A. A year's operation of a modified Rothamsted light trap. N.Z. J. Sci. Tech., Wellington (B) **32** (1950) 1951 pp. 1–8, 2 figs.

652.—Cumber, R. A. Flight records of Lepidoptera taken with a modified Rothamsted light trap operated at Paiaka. N.Z. J. Sci., Wellington (B) **33** 1951 pp. 187–190.

653.—Cumber, R. A. Some observations on the biology of the Australian wasp *Polistes humilis* Fabr. (Hymenoptera : Vespidae) in North Auckland (New Zealand), with special reference to the nature of the worker caste. Proc. R. ent. Soc. London (A) **26** 1951 pp. 11–16.

Cunha *see* Brito da Cunha.

654.—Curran, C. H. Synopsis of the North American species of *Spilomyia* (Syrphidae, Diptera). Amer. Mus. Novit., New York no. 1492 1951 11 pp.

655.—Curran, C. H. The West Indian species of *Mydas* and *Proctacanthus* (Diptera : Mydaidae and Asilidae). Amer. Mus. Novit., New York no. 1507 1951 9 pp.

Dackerman, M. E. *see* Patterson, Dackerman & Schult.

656.—Dakshinamurty, S. & **Sharma,** M. I. D. The humidity preferences of mosquitoes. Indian J. Malariol., Calcutta **5** 1951 pp. 209–219, 2 figs.

657.—Dakshinamurty, S. & **Sharma,** M. I. D. The temperature preferences of mosquitoes. Indian J. Malariol., Calcutta **5** 1951 pp. 221–227, 1 fig.

658.—Dalmat, H. T. Studies on the flight range of certain Simuliidae, with the use of aniline dye marker. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 537–545, 1 map. [Dipt.]

659.—Dalmat, H. T. Notes on the Simuliidae (Diptera) of Guatemala, including descriptions of three new species. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 31–58, 6 pls.

660.—D'Amato, F. Recenti acquisizioni nel Campo della Chemiogenetica : I prodotti del ricambio organico come agenti mutageni. Caryologica, Pisa **3** 1951 pp. 249–259.

661.—Dammerman, K. W. Original spelling and emendation in nomenclature. Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 198–205.

662.—Daniel, F. Beiträge zur Kenntnis der Arctiidae Ostasiens unter besonderer Berücksichtigung der Ausbeuten von Dr. h.c. H. Höne aus diesem Gebiet (Lep.-Het.). III. Teil : Lithosiinae. Bonn. zool. Beitr. **2** 1951 pp. 291–327, 1 pl. 24 figs.

663.—Daniel, F. Mit welchen Organen nehmen Nachtfalter künstliche Lichtquellen wahr? Eine Erfahrungszusammenstellung mit der Bitte um Bekanntgabe weiterer Beobachtungen. Ent. Z., Frankfurt a. M. **59** 1950 pp. 153–157 ; **61** 1951 pp. 105–109, 115–120. [Lep.]

664.—Daniel, F. Beiträge zur Lebensweise von *Selenephera lunigera* f. *lobulina* Esp. (Lep. Lasiocamp.). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 251–257.

665.—Daniel, F., **Forster,** W. & **Osthelder,** L. Beiträge zur Lepidopterenfauna Mazedoniens. Veröff. zool. Staatssamml. München, Munich **2** 1951 pp. 1–78, 2 pls.

666.—[Danilevskiĭ, A. S.] The dependence of the geographical distribution of insects on the ecological peculiarities of their life cycles. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 194–207, 7 figs.

667.—[Danilevskiĭ, A. S.] A new genus and species of a predatory moth feeding on mealybugs, *Coccidiphila gerasimovi* Danilevsky, gen. et sp. n. (Lepidoptera, Momphidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 47–53, 6 figs.

668.—Danneel, R. & **Hannes,** G. Bestimmung der relativen Augenbreite bei der Mutante " Bar " von *Drosophila melanogaster* und ihrer Veränderung durch Bar^{+}–wirksame Extrakte. Z. Naturf., Tübingen **6B** 1951 pp. 451–458, 8 figs. [Dipt.]

669.—Dannreuther, T. Migration records, 1950. Entomologist, London **84** 1951 pp. 85–90, 102–106.

670.—Dannreuther, T. Insect immigration in 1950. Scot. Nat., Aberdeen **63** 1951 pp. 122–127.

671.—Darchen, R. Sur le géotropisme de *Blattella germanica*. C.R. Soc. Biol., Paris **145** 1951 pp. 380–381. [Orth.]

672.—Darlow, H. M. Insects taken at sea in 1949. Entomologist, London **84** 1951 pp. 36–39.

673.—Darlow, H. M. Observations on migrant Lepidoptera in the Mediterranean. Entomologist, London **84** 1951 pp. 246–254.

674.—Darsie, jr., R. F. Pupae of the Culicine mosquitoes of the Northwestern United States (Diptera, Culicidae, Culicini). Mem. Cornell Univ. agric. Exp. Sta., Ithaca no. 304 1951 67 pp. 16 pls.

Das Gupta *see* Gupta.

675.—Dass, C. M. S. Meiosis in two members of the family Nepidae (Hemiptera–Heteroptera). Caryologia, Pisa **4** 1951 pp. 77–84, 1 pl. 6 figs.

676.—Dasse, G. Contribution à l'étude de trois espèces belges du genre *Cucullia* Schrank. Lambillionea, Brussels **50** (1950) 1951 pp. 81–84. [Lep.]

677.—Daviault, L. La prévision des invasions d'insectes. Ann. ACFAS, Montreal **17** 1951 pp. 53–61.

678.—Davies, D. M. Some observations on the number of black flies (Diptera, Simuliidae) landing on coloured cloths. Canad. J. Zool., Ottawa **29** 1951 pp. 65–70, 4 figs.

679.—Day, M. F. Studies on the digestion of wool by insects. I, III. Aust. J. sci. Res., Melbourne (B) **4** 1951 pp. 42–48, 2 pls., 64–74, 2 pls.

680.—Day, M. F. The mechanism of secretion by the salivary gland of the cockroach *Periplaneta americana* (L.). Aust. J. sci. Res., Melbourne (B) **4** 1951 pp. 136–143, 2 pls. (1 col.) 1 fig. [Orth.]

681.—Day, M. F. & **McKinnon,** A. A study of some aspects of the feeding of the Jassid *Orosius*. Aust. J. sci. Res., Melbourne (B) **4** 1951 pp. 125–135, 4 figs. [Hem.]

Day, M. F. *see* Powning, Day & Irzykiewicz.

682.—DeBach, P., **Fleschner,** C. A. & **Dietrick,** E. J. A biological check method for evaluating the effectiveness of entomophagous insects. J. econ. Ent., Menasha **44** 1951 pp. 763–766.

de Beaumont *see* Beaumont.

Debouteville *see* Delamare-Debouteville.

683.—De Buen, A. M. Nota sobre Hippoboscidae (Diptera) de México. An. Inst. Biol., Mexico **21** (1950) 1951 pp. 415–416.

684.—De Carlo, J. A. Género *Limnocoris* Stål (Hem. Naucor.) *Usingerina* Ira La Rivers, igual a *Limnocoris* Stål; descripción de especies nuevas y datos sobre otras poco conócidas. Misión Estud. Pat. reg. argent., Buenos Aires **22** no. 79 1951 pp. 41–51, 13 figs.

685.—De Carlo, J. A. (I) Nueva agrupación en subgéneros de las especies del género *Abedus* Stål (Hemipt. Belostom.). (II) Descripción de dos especies nuevas del género *Cryphocricos* (Hemipt. Naucor.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 69–76, 9 figs.

686.—Decary, R. La faune malgache. Son rôle dans les croyances et les usages indigènes. Paris, Payot 1950 236 pp. 22 figs. [Insects pp. 143–161.]

687.—Decelle, J. E. Contribution à l'étude des Bruchidae du Congo belge (Col. Phytophaga). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 172–192, 5 figs.

de Figueiredo *see* Figueiredo.

688.—Defretin, R. Données nouvelles sur la sécrétion salivaire des larves de chironome. C.R. Acad. Sci., Paris **233** 1951 pp. 103–105. [Dipt.]

689.—Defromont, C., **Lavabre,** E. & **Taufflieb,** R. Sur l'excrétion de quelques colorants chez l'abeille. Arch. int. Physiol., Paris **58** 1950 pp. 343–349. [Hym.]

de Groot *see* Groot.

de Gunst *see* Gunst.

Dekeyser, P. L. *see* Villiers & **Dekeyser,**

690.—Delamare-Deboutteville, C. Notes faunistiques sur les Collemboles de France. Collemboles cavernicoles des Pyrénées-orientales. Arch. Zool. exp. gén., Paris **87** Notes et Rev. 1951 pp. 156–161, 22 figs.

691.—Delamare-Deboutteville, C. Nouveaux Paronelliens de la Côte d'Ivoire. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1072–1075, 18 figs. [Collemb.]

692.—Delamare-Deboutteville, C. Nouveaux Collemboles de la Côte d'Ivoire. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 280–286, 19 figs.

693.—Delamare-Deboutteville, C. Notes faunistiques sur les Collemboles de France (IX). Collemboles cavernicoles de l'Ardèche récoltés par le Dr. J. Balazuc. Bull. Soc. linn. Lyon **20** 1951 pp. 116–120, 16 figs.

694.—Delamare-Deboutteville, C. Caractères sexuels sécondaires curieux chez un Collembole symphypleone du Sénégal *Bovicornia coronata* Delamare. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2 1951 pp. 237–244, 2 figs.

695.—Delamare-Deboutteville, C. Notes faunistiques sur les Collemboles de France. Nouveaux Collemboles cavernicoles des Pyrénées-orientales. Vie et Milieu, Paris **2** 1951 pp. 56–59, 8 figs.

696.—Delamare-Deboutteville, C. & **Gisin,** H. Collemboles cavernicoles de l'Italie méridionale récoltés par M. La Greca. Annu. Ist. Mus. Zool. Univ. Napoli **3** 1951 no. 3 pp. 1–4, 7 figs.

697.—Delamare-Deboutteville, C. & **Gisin,** H. Collemboles cavernicoles d'Italie récoltés par M. S. Patrizi. Boll. Soc. ent. ital., Genoa **81** 1951 pp. 85–86.

698.—Delamare-Deboutteville, C. & **Théodoridès,** J. Sur la constance de l'association entre nématodes phorétiques et collemboles cavernicoles. Vie et Milieu, Paris **2** 1951 pp. 50–55, 1 fig.

699.—Delattre, R. Description de nouveaux Miridae africains (Hem. Heter.). Bull. Soc. ent. France, Paris **55** (1950) 1951 pp. 151–153, 2 figs.

700.—De Lerma, B. Note originali e critiche sulla morfologie comparata degli organi frontali degli Artropodi. Annu. Ist. Mus. Zool. Univ. Napoli **3** 1951 no. 1 pp. 1–25, 2 pls. [Thysanura.]

701.—De Lerma, B. Ricerche istochimiche sui "corpi lutei" di ortotteri con l'applicazione del test di Schultz per le sostanze colesteroliche. Boll. Zool., Torino **18** 1951 pp. 5–6.

702.—De Lerma, B. Citospettografia di fluorescenza dei tubi malpighiani di Ortotteri. Boll. Zool., Torino **18** 1951 pp. 7–8, 1 fig.

de Lesse *see* Lesse.

703.—Delkeskamp, K. Zur Zoogeographie der Erotyliden (Col.). II. Beitrag zur Kenntnis der Erotylidae. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 131–144.

704.—Delmas, R. & **Rambier,** A. Contribution à l'étude de la répartition du criquet marocain (*Dociostaurus maroccanus* Thunb.) en France occidentale. C.R. Acad. Sci., Paris **232** 1951 pp. 566–567, 1 map. [Orth.]

705.—DeLong, D. M. & **Knull,** D. J. Check list of the Cicadellidae (Homoptera) of America, north of Mexico. Graduate Sch. stud. Ohio Univ., Columbus Biol. Sci. Ser. no. 1 1945 102 pp.

706.—DeLong, D. M. & **Ruppel,** R. F. Some new species of Mexican *Alconeura* (Homoptera-Cicadellidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 57–64, 1 pl.

707.—DeLong, D. M. & **Ruppel,** R. F. Four new species of Mexican *Cicadella* (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **51** 1951 pp. 95–98, 1 pl.

DeLong, D. M. *see* Ruppel & DeLong.

708.—De Lotto, G. Osservazioni sulla biologia del *Phymateus viridipes* St. (Orth. Acrididae). Riv. Agric. subtrop., Firenze **65** 1951 pp. 8–18, 9 figs.

709.—Del Ponte, E. Curso de Entomología. III. Morfología interna. Publ. Ext. cult. didact. Mus. argent. Cienc. nat. Bernardino Rivadavia, Buenos Aires no. 1 1950 pp. 103–161, 88 figs.

710.—Del Ponte, E., **Castro,** M. P. & **García,** M. Clave para las especies de *Psorophora* y *Aëdes* de la Argentina y comarcas vecinas. Diagnosis de *Aëdes* (*O.*) *raymondi* n. sp. (Diptera, Culicidae). An. Soc. cient. argent., Buenos Aires **151** 1951 pp. 228–243.

711.—De Lucca, C. New additions to the Lepidoptera of Malta. Entomologist, London **84** 1951 pp. 258–259.

712.—Delucchi, V. L'allevamento in massa di *Apanteles rubecula* Marsh., braconide endoparassita di *Pieris rapae* L. Redia, Florence **35** 1950 pp. 205–224, 4 figs. [Hym., Lep.]

713.—Delucchi, V. Note morfologiche su *Tetrastichus rapo* Walker calcidide parassita di imenotteri utili all'agricoltura. Redia, Florence **35** 1950 pp. 441–450, 6 figs. [Hym.]

714.—De Meillon, B. Madagascan Simuliidae. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 71–77, 2 figs. [Dipt.]

715.—De Meillon, B. & **Hardy,** F. New records and species of biting insects from the Ethiopian Region—III. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 30–35, 2 figs. [Dipt.]

716.—De Meillon, B. & **Hardy,** F. Fate of *Cimex lectularius* on adult and baby mice. Nature, London **167** 1951 pp. 151–152. [Hem.]

717.—De Meillon, B. & **Zumpt,** F. Restriction of types. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 150–151.

718.—Demelt, C. von. Nota sul *Neoclytus acuminatus* Fabr. (Coleopt. Cerambycidae). Atti Soc. ital. Sci. nat., Milan **89** 1950 pp. 229–231, 2 figs.

de Miré *see* Miré.

719.—Demoulin, G. A propos de *Metretopus goetghebueri* Lestage, 1938, et des Metretopodidae (Insectes, Ephéméroptères). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 49, 20 pp. 11 figs.

720.—[Demyanovskiĭ, S. Ya., **Nefedova,** V. A. & **Kondrat'eva,** V. K.] The nutritional properties of the leaves of birch, used for the oak silkworm, depending on the species of the birch, its age and conditions of habitation. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **16** 1951 pt. 6 pp. 41–43. [Lep.]

721.—Denning, D. G. Records and descriptions of Nearctic caddis flies. Part III. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 157–162, 1 pl. [Trichopt.]

Denning, D. G. *see* Kimmins & Denning.

722.—Dennis, C. J. A list of the Wisconsin species of Membracidae. Canad. Ent., Ottawa **83** 1951 pp. 183–184. [Hem.]

723.—Dent, J. N. & **Amy,** R. L. Developmental effects observed in *Habrobracon* after exposure to beta radiation. Growth, Philadelphia **14** 1950 pp. 113–121, 1 fig. [Hym.]

de Ruiter *see* Ruiter.

Descole, H. R. [Ed.] Genera et species animalium argentinorum. *See* Hayward, K. J.

724.—Despax, R. Faune de France. 55. Plécoptères. Paris, P. Lechevalier 1951 280 pp. 128 figs.

725.—Dethier, V. G. The limiting mechanism in tarsal chemoreception. J. gen. Physiol., Baltimore **35** 1951 pp. 55–65, 3 figs.

726.—Dethier, V. G. & **Chadwick,** L. E. Chemoreception in insects. Physiol. Rev., Baltimore **20** 1948 pp. 220–254.

727.—Dewailly, M. Note sur un *Peryphus* nouveau de France (Coleoptera Bembidiitae). Rev. franç. Ent., Paris **18** 1951 pp. 91–93, 2 figs.

Dewailly, P. *see* Théodoridès & Dewailly.

728.—Diakonoff, A. Notes on synonymy of some South Asiatic Microlepidoptera. Bijdr. Dierk., Leiden **28** 1949 pp. 133–139.

729.—Diakonoff, A. Case bearing Lepidoptera III. Idea, Bogor (Buitenzorg) **8** 1951 pp. 83–91, 15 figs.

730.—Diakonoff, A. Records and descriptions of Microlepidoptera (4). Treubia, Bogor **21** 1951 pp. 133–182, 33 figs.

731.—Diakonoff, A. Notes on cave-dwelling Microlepidoptera with description of a new genus and species from East Java (Family Oinophilidae). Zool. Meded., Leiden **31** 1951 pp. 129–137, 6 figs.

732.—Dias dos Santos, N. *Oligoclada calverti* n. sp. (Odonata: Libellulidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 135–137, 6 figs.

Díaz Nájera, A. *see* Vargas & Díaz Nájera.

Dicke, R. J. *see* Knipping, Morgan & Dicke.

Dietrick, E. J. *see* DeBach, Fleschner & Dietrick.

733.—Dijkgraaf, S. Nieuwe resultaten van het onderzoek omtrent de "Bijentaal." Vakbl. Biol., Helder **31** 1951 pp. 161–171, 8 figs. [Hym.]

734.—Dillon, L. S. A review of spermiogenesis in insects, with a study of the process in *Hippiscus rugosus* under the phase microscope. Texas J. Sci., Houston **2** 1950 pp. 419–430, 3 pls. 3 figs. [Orth.]

735.—Dinther, J. B. M. van. Twee Coccinellidae als roofvijanden van *Dreyfusia piceae* Ratz. Tijdschr. Ent., Amsterdam **94** 1951 pp. 169–188, 2 figs. [Col., Hem.]

736.—Dirsh, V. M. A new injurious Indian grasshopper (Orthoptera,Acrididae). Bull. ent. Res., London **41** 1951 pp. 599–601, 7 figs.

737.—Dirsh, V. M. A new grasshopper (Orth. Acrididae) damaging groundnuts. Bull. ent. Res., London **42** 1951 pp. 41–43, 9 figs.

738.—Dirsh, V. M. A new biometrical phase character in locusts. Nature, London **167** 1951 pp. 281–282, 3 figs. [Orth.]

739.—Dirsh, V. M. Some new and little-known African Acrididae (Orthoptera). Proc. R. ent. Soc. London (B) **20** 1951 pp. 73–79, 17 figs.

740.—Dispons, P. Révision du genre *Amphibolus* Klug (Hem. Reduviidae) en Afrique du Nord. Bull. Soc. ent. France, Paris **56** 1951 pp. 71–73.

741.—Dispons, P. Un *Ploearia* nouveau de l'Afrique du nord (Hemiptera Reduviidae). Rev. franç. Ent., Paris **18** 1951 pp. 169–171, 5 figs.

742.—[Dmitrieva-Yurgenson, I. A.] Contribution to the biology of the grasshopper *Deracantha onos* Pall. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 157–164. [Orth.]

743.—Dobrovsky, T. M. Postembryonic changes in the digestive tract of the worker honeybee (*Apis mellifera* L.). Mem. Cornell Univ. agric. Exp. Sta., Ithaca no. 301 1951 45 pp. 12 pls. [Hym.]

744.—Dobšík, B. Contribution à la connaissance des Hétéroptères de Čsr IV. [In Czech with French summary.] Ent. Listy, Brno **13** 1951 pp. 36–40, 1 fig. [Hem.]

745.—Dobšík, B. Addit. ad cognitionem orthopterorum de Čsr-II. [In Czech with Latin summary.] Ent. Listy, Brno **13** 1951 pp. 97–99.

Dobzhansky, N. *see* Pavan, Cordeiro & others.

746.—Dobzhansky, T. The chromosomes of *Drosophila willistoni*. J. Hered., Washington **41** 1950 pp. 156–158, 1 pl. [Dipt.]

747.—Dobzhansky, T. & **Levene,** H. Development of heterosis though natural selection in experimental populations of *Drosophila pseudoobscura*. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 247–264, 7 figs. [Dipt.]

Dobzhansky, T. *see* Brito da Cunha, Dobzhansky & Sokoloff; Pavan, Cordeiro & others.

748.—Docters van Leeuwen, W. M. Nieuwe gallen van Nederland. Tweede Bijdrage. Ent. Ber., Amsterdam **13** 1951 pp. 296–303.

749.—Dodge, H. R. The occurrence of certain Palaearctic species of Muscoid Diptera in the United States. Proc. ent. Soc. Washington **53** 1951 pp. 341–342.

750.—Doesburg, P. H. van. Passalidae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 329–335 [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 315–321].

751.—Doesburg, P. H. van. Mededelingen over Syrphidae IX. Ent. Ber., Amsterdam **13** 1951 pp. 275–278, 3 figs. [Dipt.]

752.—Dolley, jr., W. L. & **White,** J. D. The effect of illuminance on the reversal temperature in the drone fly, *Eristalis tenax*. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 84–89, 2 figs. [Dipt.]

753.—Dolley, jr., W. L. & **White,** J. D. The effect of illuminance on the lethal temperature in the drone fly, *Eristalis tenax*. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 90–94, 1 fig. [Dipt.]

754.—Domenichini, G. Contributo alla conoscenza del *Callosobruchus maculatus* F. e dei suoi parassiti. Boll. Zool. agrar. bachic., Turin **17** 1951 pp. 101–122, 9 figs. [Col.]

755.—Domenichini, G. Parassiti e iperparassiti di *Pseudococcus citri* Risso in Italia e nel Perù. Boll. Zool. agrar. bachic., Turin **17** 1951 pp. 157–180, 10 figs. [Hem., Hym.]

Donis, C. *see* Mayné & Donis.

dos Santos Vilar *see* Santos Vilar.

756.—Dosse, G. Der grosse Kohltriebrüssler *Ceuthorrhynchus napi* (Gyll.). Biologie, Schadauftreten und Bekämpfung unter besonderer Berücksichtigung der " Gallbildung " an Kohlpflanzen. Z. angew. Ent., Berlin **32** 1951 pp. 489–566, 41 figs. [Col.]

757.—Doublet, C. Matériaux pour servir à la connaissance des Hyménoptères de France. Entomologiste, Paris **7** 1951 pp. 110–114.

758.—Doucet, J. Les moustiques de le region de Perinet. Mém. Inst. sci. Madagascar, Tananarive **6A** 1951 pp. 63–82, 11 figs. [Dipt.]

759.—Doucet, J. Etude des Culicides de la region de Vangaindrano (Diptera). Mém. Inst. sci. Madagascar, Tananarive **6A** 1951 pp. 83–114, 4 figs. 1 map, 1 graph, [Dipt.]

760.—Douglas, A. & **Serventy,** V. N. The establishment of the paper nest wasp in Western Australia. W. Aust. Nat., Perth **2** 1951 pp. 169–174, 3 figs. [Hym.]

761.—Doutt, R. L. The parasite complex of *Furcaspis oceanica* Lindinger. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 501–507, 3 figs. [Hem.]

762.—Doutt, R. L. The phenomenon of autonarcosis in a parasitic wasp. Canad. Ent., Ottawa **83** 1951 pp. 131–132. [Hym.]

763.—Dowdy, W. W. Further ecological studies on stratification of the Arthropoda. Ecology, Lancaster, Pa. **32** 1951 pp. 37–52, 2 figs.

764.—Downs, W. G. Growth changes of Anopheline eggs in water and in saline solutions. J. nat. Malar. Soc., Georgia **10** 1951 pp. 17–22, 3 graphs. [Dipt.]

765.—Downs, W. G. Una variante rara de huevecillo de *Anopheles aztecus* Hoffman[n] 1935. Rev. Inst. Salub. Enferm. trop. Mexico **11** 1950 pp. 175–176, 2 figs.

Downs, W. G. *see* Bordas & Downs ; Souza Lopes & Downs.

766.—Drake, C. J. New genera and species of Tingidae (Hemiptera) in the Hungarian National Museum. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 165–178.

767.—Drake, C. J. New gerontogenous Hydrometridae (Hemiptera). Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 101–105.

768.—Drake, C. J. New Neotropical water-striders (Hemiptera-Veliidae). Gt. Basin Nat., Provo **11** 1951 pp. 37–42.

769.—Drake, C. J. New American chinch bugs (Hemiptera : Lygaeidae). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 319–323, 3 figs.

770.—Drake, C. J. New neogaean water-striders (Hemiptera-Veliidae). Proc. biol. Soc. Washington **64** 1951 pp. 75–82.

771.—Drake, C. J. New water-striders from insular America (Hemiptera, Veliidae). Proc. ent. Soc. Washington **53** 1951 pp. 338–340.

772.—Drake, C. J. New water-striders from the Americas (Hemiptera : Veliidae). Rev. Ent., Rio de Janeiro **22** 1951 pp. 371–378.

773.—Drake, C. J. & **Hoberlandt,** L. New Leptopodidae (Hemiptera-Heteroptera) from Angola, Portuguese West Africa. Publ. cult. Comp. Diam. Angola, Lisbon no. 11 1951 pp. 7–16, 6 figs.

774.—Drake, C. J. & **Hottes,** F. C. Stridulatory organs in Saldidae (Hemiptera). Gt. Basin Nat., Provo **11** 1951 pp. 43–46, 2 figs.

775.—Drake, C. J. & **Hottes,** F. C. Two new species of Leptopodidae (Hemiptera). J. Kans. ent. Soc., Manhattan **24** 1951 pp. 21–27, 1 fig.

776.—Drake, C. J. & **Hottes,** F. C. Two new species of Saldidae (Hemiptera) from western United States. Proc. biol. Soc. Washington **62** 1949 pp. 177–184, 1 pl.

777.—Drake, C. J. & **Hottes,** F. C. Three new species of Saldidae (Hemiptera). Proc. biol. Soc. Washington **63** 1950 pp. 177–184, 2 figs.

778.—Drake, C. J. & **Hottes,** F. C. A new Halobatinid from Mexico (Hemiptera; Gerridae). Proc. biol. Soc. Washington **64** 1951 pp. 141–144.

779.—Drake, C. J. & **Hottes,** F. C. Notes on the genus *Rheumatobates* Bergroth (Hemiptera : Heteroptera). Proc. biol. Soc. Washington **64** 1951 pp. 147–158.

780.—Drake, C. J. & **Hottes,** F. C. Brasilian Saldidae (Hemiptera). Rev. Ent., Rio de Janeiro **22** 1951 pp. 379–382, 1 fig.

781.—Drake, C. J. & **Hussey,** R. F. Concerning some American *Microvelia* (Hemiptera : Veliidae). Florida Ent., Gainesville **34** 1951 pp. 137–145.

782.—Drake, C. J. & **Hussey,** R. F. An undescribed shore-bug from Mexico (Hemiptera : Saldidae). Occ. Pap. Mus. Zool. Univ. Michigan, Ann Arbor no. 536 1951 3 pp.

783.—Dreisbach, R. R. The family Bembecidae (Hymenoptera : Sphecoidea) in Michigan, with keys to the genera and the species of the State and distribution records. Pap. Michigan Acad. Sci., Ann Arbor **35** (1949) 1951 pt. 2 Zool. pp. 101–107.

Dresco, E. *see* Balazuc, Dresco, Henrot & Nègre.

784.—Dreyfus, A., **Nonato,** E., **Breuer,** M. E. & **Pavan,** C. Cromosomas politênicos em vários órgãos de *Rhynchosciara angelae* Nonato & Pavan (Diptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 439–450, 13 figs.

785.—Drift, J. van der. Analysis of the animal community in a beech forest floor. Tijdschr. Ent., Amsterdam **94** 1951 pp. 1–168, 1 pl. 16 figs. 3 fldg. tables.

786.—Drilhon, A. Identification chromotographique et chimique d'une substance fluorescente du sang et du tube de Malpighi de la larve de *Bombyx mori* atteinte de grassérie. C.R. Acad. Sci., Paris **232** 1951 pp. 1876–1878. [Lep.]

787.—Drilhon, A. & **Busnel,** R. G. Les acides aminés libres et les substances fluorescentes du sang et du tube de Malpighi de la chenille de *Bombyx mori* L. C.R. Acad. Sci., Paris **232** 1951 pp. 182–184. [Lep.]

788.—Drilhon, A. & **Busnel,** R. G. Sur la discrimination des acides aminés libres du sang de *Bombyx mori* par la chromatographie sur papier. Rev. Ver à Soie, Alès **1** 1949 pp. 51–53. [Lep.]

789.—Drilhon, A., **Busnel,** R. G. & **Vago,** C. Les acides aminés libres et les substances fluorescentes du sang, et des tubes de Malpighi, de la chenille de *Bombyx mori* L., atteinte de la maladie à polyèdres et de la flachérie. C.R. Acad. Sci., Paris **232** 1951 pp. 360–361. [Lep.]

Drummond, F. H. *see* Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

790.—Dudziak, J. Experiments on the plasticity of instinct in *Phryganea obsoleta* McLach. (Trichoptera).

Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 145–171, 6 figs. Abstract in English in C.R. Sci. math. nat. acad. polon. **1950** 1950 no. 4–5 pp. 17–18.

792.—Dujardin, F. La genèse quaternaire et monographie raisonnée des races de *Lysandra hispana* H.S. (=*albicans* H.–S., =*arragonensis* Gerh., =*coerulescens* Tutt). Lambillionea, Brussels **50** (1950) 1951 pp. 99–101.

793.—Dunn, E. Wing coloration as a means of determining the age of the Colorado beetle (*Leptinotarsa decemlineata* Say). Ann. appl. Biol., London **38** 1951 pp. 433–434, 1 col. pl. [Col.]

794.—Dupont-Raabe, M. Etude expérimentale de l'adaption chromatique chez le phasme *Carausius morosus* Br. C.R. Acad. Sci., Paris **232** 1951 pp. 886–888. [Orth.]

795.—Dupuis, C. Les espèces françaises du genre *Eurydema* Laporte (Hemiptera Pentatomoidea, subfam. Pentatominae). Révision systématique avec une introduction à l'étude morphologique des organes génitaux externes des Pentatomoidea. Ann. Soc. ent. France, Paris **118** 1951 pp. 1–28, 21 figs.

796.—Dupuis, C. Note préliminaire sur *Strawinskiomyia* (n.g.) *costata* (Panzer, 1801). Bull. Soc. zool. France, Paris **76** 1951 pp. 129–137, 1 fig. [Dipt.]

797.—Dupuis, C. Allochromie liée aux modifications du métabolisme chez les Hémiptères des genres *Dolycoris* et *Carpocoris*. C.R. Acad. Sci., Paris **232** 1951 pp. 262–264.

798.—Dupuis, C. Les insectes parasites entomophages. Feuille Nat., Paris (N.S.) **6** 1951 pp. 45–54.

799.—Durand, M. C. Sensibilité de la chromatine aux hydrolyses acides et enzymatiques dans la spermatogénèse de *Gryllus bimaculatus*. Bull. biol., Paris **85** 1951 pp. 419–421. [Orth.]

800.—Dusi, J. L. A simple microviewing apparatus. Ohio J. Sci., Columbus **51** 1951 pp. 192–194, 2 figs.

801.—Dutt, M. K. Polyploidy in a short-horned grasshopper. Current Sci., Bangalore **20** 1951 pp. 327–328, 1 fig. [Orth.]

802.—Dutt, M. K. Studies on chromosome behaviour and sex chromosome in *Chrotogonus* sp. (Pyrhomorphinae, Acrididae). Proc. zool. Soc. Bengal, Calcutta **3** 1950 pp. 109–117, 5 figs.

803.—Dvořák, R. & **Havelka,** J. Revision of species *Stenus grossepunctatus* Reitt. together with a description of one new species (Col. Staphyl.). [In Czech with English summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 3–11, 25 figs.

804.—[D'yakonov, A. M.] The apricot Geometrid (*Pterotocera armeniacae* Djakonov, sp. n.) and allied species (Lepidoptera, Geometridae). [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 370–380; 5 figs.

805.—Eads, R. B. A new species of *Jellisonia* Traub from Mexico (Ceratophyllidae, Siphonaptera). J. Parasit., New York **37** 1951 pp. 147–150, 2 pls.

Eads, R. B. *see* Eben & Eads; Menzies, Eads & Hightower.

806.—Easton, A. M. *Meligethes bidentatus* Brisout (Col., Nitidulidae) in Britain: the problem of its specific status. Ent. mon. Mag., London **87** 1951 pp. 10–15, 10 figs.

807.—Easton, A. M. A revision of the *Meligethes* (Col., Nitidulidae) of J. F. Stephens with consequent amendments to the nomenclature of the genus. Ent. mon. Mag., London **87** 1951 pp. 281–284.

808.—Easton, A. M. The *Meligethes* of Pyrénées-Orientales (Col. Nitidulidae). Rev. franç. Ent., Paris **18** 1951 pp. 177–187.

809.—Eastop, V. F. A list of aphids collected in Berkshire. Entomologist, London **84** 1951 pp. 107–112. [Hem.]

810.—Eastop, V. F. Diurnal variation in the aerial density of Aphididae. Proc. R. ent. Soc. London (A) **26** 1951 pp. 129–134, 1 fig. [Hem.]

Eastop, V. F. *see* Johnson & Eastop.

811.—Eben, D. & **Eads,** R. B. The biology of *Triatoma protracta woodi* Usinger under laboratory conditions. Texas J. Sci., Houston **3** 1951 pp. 131–133, 1 fig. [Hem.]

812.—Eberle, G. Vom Windenschwärmer. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 121–126, 5 figs. [Lep.]

813.—Ebner, R. Kritisches Verzeichnis der orthopteroiden Insekten von Österreich. Verh. zool.-bot. Ges. Wien **92** 1951 pp. 143–165.

814.—[Édel'man, N. M.] The day and night rhythm of the intensity of respiration in insects. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 216–224, 4 figs.

Edgren, R. A. *see* Park & Edgren.

815.—Edmunds, jr., G. F. New species of Utah mayflies. I. Oligoneuriidae (Ephemeroptera). Proc. ent. Soc. Washington **53** 1951 pp. 327–331, 8 figs.

816.—Edwards, E. O. New races of *Ialmenus icilius*. Proc. R. zool. Soc. N.S.W., Sydney **1949-50** 1951 pp. 58–60. [Lep.]

817.—Eggers, F. Neue Bemerkungen zur Halterenfrage. Zool. Anz., Leipzig **145** 1950 Ergänzungsband pp. 127–134. [Dipt.]

818.—Eggers, H. Borkenkäfer (Ipidae, Col.) aus Südamerika. XII. 25 neue Arten aus verschiedenen Gebieten. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 144–154.

819.—Ehrlich, I. Ueber das Verhalten der Geschlechtschromosomen von *Acanthaclisis occitanica* Vill. (Neuroptera) während der meiotischen Prophase. Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950 pp. 168–169.

820.—Ehrlich, P. R. & **Gillham,** N. W. A new *Atrytone* from Nebraska (Lepidoptera : Hesperioidea). Ent. News, Philadelphia, Pa. **62** 1951 pp. 188–189.

821.—Eichler, F. Beobachtungen an einem gynandromorphen *Dendrolimus pini* L. (Lep. Zwitter). Ent. Z., Frankfurt a. M. **60** 1950 pp. 47–48.

822.—Eichler, W. Mallophagen-Synopsis XVII. Genus *Koeniginirmus*. Bonn. zool. Beitr. **2** 1951 pp. 125–134, 6 figs.

823.—Eichler, W. Frass und Kopulation, Eiablage und Feinde von *Bothynoderes punctiventris*. Ent. Z., Frankfurt a. M. **61** 1951 pp. 73–78. [Col.]

824.—Eichler, W. Laboulbeniales bei Mallophagen und Läusen. Feddes Repert., [?Berlin] **54** 1951 pp. 185–206, 53 figs.

825.—Eichler, W. Mallophagen-Synopsis. XVI. Genus *Saemundssonia*. Greinar, Reykjavik **3** 1951 [pre-print 1950] pp. 1–33, 27 figs.

826.—Eichler, W. Grenzfälle der Parasitendifferenzierung II. Esel- und Pferdelaus. Mh. VetMed., Berlin **6** 1951 p. 76, 1 fig. [Anoplura.]

827.—Eichler, W. Die Entwicklung der Fragestellung in der Parasitologie. Mh. VetMed., Berlin **6** 1951 pp. 478–482.

828.—Eichler, W. Die Bedeutung des *Drosophila*-Tests für die Kontaktinsektizidforschung. Pharmazie, Berlin [**6**] 1951 pp. 474–478, 2 figs.

829.—Eichler, W. Notulae Mallophagologicae. XVII. Die Myrsideen. Zool. Anz., Leipzig **146** 1951 pp. 45–53, 8 figs.

830.—Eichler, W., **Löpmann,** A. & **Pagast,** F. Beobachtungen über *Anopheles hyrcanus*. Z. Tropenmed. Parasit., Stuttgart **3** 1951 pp. 25–32, 3 figs. [Dipt.]

831.—Eichler, W. & **Schrödter,** H. Witterungsfaktoren als Urheber der Massenvermehrung des Rübenderbrüsslers (*Bothynoderes punctiventris*) 1947–1949 in Mitteldeutschland. Z. angew. Ent., Berlin **32** 1951 pp. 567–575, 2 figs. [Col.]

832.—Eidmann, H. Ueber Oekologie und Lebensweise des Buchenspringrüsslers *Rhynchaenus* (=*Orchestes*) *fagi* L. Zool. Anz., Leipzig **147** 1951 pp. 225–237, 9 figs. [Col.]

833.—Ekholm, S. Migrations of the Painted Lady, *Vanessa cardui* L. (Lep. Nymphalidae) in 1948 in Finland. Notul. ent., Helsinki **31** 1951 pp. 2–15, 1 fig.

Eklund, G. *see* Leyon & Eklund.

834.—Elbel, R. E. Comparative studies on the larvae of certain species of fleas (Siphonaptera). J. Parasit., New York **37** 1951 pp. 119–128, 3 pls.

835.—Elfving, R. Die Gattung *Prosopis* Fabr. (Hym., Apidae) in Finnland. Notul. ent., Helsinki **31** 1951 pp. 67–92, 41 figs., 10 maps.

836.—Elkins, J. C. Head capsule of the Hemipteran, *Triatoma sanguisuga* (LeConte). Field & Lab., Dallas **19** 1951 pp. 128–132, 1 fig.

837.—Elkins, J. C. The Reduviidae of Texas. Texas J. Sci., Houston **3** 1951 pp. 407–412. [Hem.]

Ellis, J. *see* Hinton, Ellis & Noyes ; Hinton, Noyes & Ellis.

Ellis, J. P. *see* Micks & Ellis.

838.—Ellis, P. E. The marching behaviour of hoppers of the African migratory locust (*Locusta migratoria migratorioides* R. & F.) in the laboratory. Anti-Locust Bull., London no. 7 1951 46 pp. 32 figs. [Orth.]

839.—El-Tabey Awab Shihata, A. M. & **Mrak,** E. M. The fate of yeast in the digestive tract of *Drosophila*. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 381–383. [Dipt.]

840.—Emden, F. I. van. Ruwenzori Expedition 1934–5. Muscidae. C.-Scatophaginae, Anthomyiinae, Lispinae, Fanniinae and Phaoniinae. London, Brit. Mus. (Nat. Hist.) **2** 1951 pp. 325–710, 4 pls. 106 figs.

841.—Emden, F. I. van. Muscidae collected on Mt. Kilimanjaro by Dr. G. Salt. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 786–793, 2 figs. [Dipt.]

842.—Emden, F. I. van. On the genus *Thaumaphrastus* Blaisdell (Coleoptera : Thorictidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 39–41.

843.—Emden, F. I. van. Description of the larva of *Aegorrhinus phaleratus* Er. (Coleoptera Curculionidae). Rev. chil. Ent., Santiago **1** 1951 pp. 245–248, 6 figs.

844.—Emden, W. G. van. On the biology of *Chrysomela menthastri* Suffr. (Col. Chrysomelidae). Compiled from the notes of the late Dr. G. H. Pethybridge. Ent. mon. Mag., London **87** 1951 pp. 224–231.

845.—Emerson, A. E. Termite studies in the Belgian Congo. Rapp. Inst. Rech. sci. Afr. centr., Brussels **2** (1949) 1951 pp. 149–159, 4 pls. [Isopt.]

846.—Emerson, K. C. A list of Mallophaga from Gallinaceous birds of North America. J. Wildlife Manag., Menasha **15** 1951 pp. 193–195.

847.—[Émme, A. M.] The stimulating effect of oxygen on the eggs of the mulberry silkworm. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **80** 1951 pp. 141–144. [Lep.]

848.—Endrödi, S. Ueber die Gattung *Xylotrupes*. Acta biol. Acad. Sci. hung., Budapest **2** 1951 pp. 239–253, 1 map, 16 figs. [Col.]

849.—Endrödi, S. Neue Aphodiinen aus dem ungarischen naturwissenschaftlichen Museum. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 157–164. [Col.]

850.—Endrödi, S. Die Arten und Aberrationen der Gattung *Goliathus* Lam. I. Folia ent. hungar., Budapest (N.S.) **4** 1951 pp. 29–49, 6 pls. [Col.]

851.—Engelhardt, W. Faunistisch-ökologische Untersuchungen über Wasserinsekten an den südlichen Zuflüssen des Ammersees. Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 1–135, 18 figs.

Epling, C. *see* Mitchell & Epling.

852.—Erdös, J. Eulophidae novae. Acta biol. Acad. Sci. hung., Budapest **2** 1951 pp. 169–237, 29 figs. [Hym.]

853.—Erdös, J. Revisio generis *Systole* Walk. cum speciebus palaearcticis. Folia ent. hungar., Budapest (N.S.) **4** 1951 pp. 57–68, 4 figs. [Hym.]

854.—Ergene, S. Wählen Heuschrecken ein homochromes Milieu ? Dtsch. zool. Z., Hanover & Berlin **1** 1951 pp. 122–132. [Orth.]

855.—Ergene, S. Hat homochrome Färbung Schutzwert ? Dtsch. zool. Z., Hanover & Berlin **1** 1951 pp. 187–195. [Orth.]

856.—Ergene, S. Untersuchungen über Farbanpassung und Farbwechsel bei *Acrida turrita*. Z. vergl. Physiol., Berlin **32** 1950 pp. 530–551, 4 figs. [Orth.]

857.—Ermin, R. I. Untersuchungen zur Honigtau- und Tannenhonigfrage in der Türkei. Rev. Fac. Sci. Univ. Istanbul, Ankara **15B** 1950 pp. 185–224, 3 pls. 3 figs.

858.—Ermisch, K. Die Gattung *Stenalia* Muls. nebst Beschreibung neuer und einer Tabelle der bisher bekanntgewordenen Arten. Mem. Soc. ent. ital., Genoa **30** 1951 pp. 92–105, 1 fig. 1 map. [Col.]

Ernst, E. *see* Geigy & Ernst.

859.—Esaki, T. & **Ishihara,** T. Hemiptera of Shansi, North China. II. Pentatomoidea. Mushi, Fukuoka **22** 1951 pp. 29–44, 3 pls.

860.—Esaki, T. & **Matsuda,** R. Hemiptera Micronesica, III. Dysodiidae. Mushi, Fukuoka **22** 1951 pp. 73–86, 4 pls.

861.—Español Coll, F. Tenebriónidos de las Pitiusas (Baleares occidentales). Eos, Madrid **27** 1951 pp. 7–41, 4 figs. [Col.]

862.—Español Coll, F. Los *Geonemus* de España y Baleares (Col. Curculionidae). Eos, Madrid **27** 1951 pp. 291–298, 6 figs.

863.—Essig, E. O. Two rare and closely related Aphids from Australia and China (Hemiptera, Aphididae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 189–192, 2 figs.

Evans, F. C. *see* Holdenried, Evans & Longanecker.

864.—Evans, H. E. A taxonomic study of the Nearctic spider wasps belonging to the tribe Pompilini (Hymenoptera : Pompilidae). Parts II, III. Trans. Amer. ent. Soc., Philadelphia 1951 **76** pp. 207–361, 12 pls. ; **77** pp. 203–330, 10 pls.

865.—Evans, J. W. Some notes on the classification of leafhoppers (Jassoidea, Homoptera) with special reference to the Nearctic fauna. Comment. biol., Helsingfors **12** 1951 no. 3 pp. 1–11.

866.—Evans, J. W. A re-examination of an Upper Permian insect, *Paraknightia magnifica* Ev. Rec. Aust. Mus., Sydney **22** 1950 pp. 246–250, 15 figs. [Foss., Hem.]

867.—Evans, W. H. A catalogue of the American Hesperiidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part I. Introduction and Group A. Pyrrhopyginae. London, Brit. Mus. (Nat. Hist.) 1951 x & 92 pp. 9 pls.

868.—Evans, W. H. Revisional notes on African Hesperiidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1268–1272, 4 figs.

Ewer, D. W. *see* Ripley & Ewer.

869.—Faester, K. Beiträge zum Studium der Spheciden (Hym.). Ent. Medd., Copenhagen **25** 1951 pp. 449–458.

870.—Faester, K. Die Unterscheidung der nahestehenden Arten *Chrysis ignita* L. und *ruddei* Schuck (Chrysididae, Hym.). Ent. Medd., Copenhagen **26** 1951 p. 191.

871.—Fagel, G. Contribution à la connaissance des Staphylinides. IV–VIII. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 15, 11 pp. 2 figs., no. 22, 12 pp. 3 figs., no. 24, 16 pp. 12 figs., no. 39, 24 pp. 24 figs., no. 46, 7 pp. 2 figs.

872.—Fagel, G. Contribution à la connaissance des Staphylinidae. III. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 222–232, 6 figs. [Col.]

873.—Fahlander, K. Några gaddstekelfynd (Hym.). Opusc. ent., Lund **16** 1951 pp. 45–47.

874.—Fahmy, O. G. A new type of meiosis in *Plastosciara pectiventris* (Nematocera, Diptera) and its evolutionary significance. Proc. Egypt. Acad. Sci., Cairo **5** (1949) 1950 pp. 12–42, 2 pls.

875.—Fahrenholz, H. Beiträge zur Kenntnis der Anopluren. IV. Mitt. ent. Ver. Bremen **26** 1938 [?1939] pp. 32–47, 7 figs.

876.—Fahrenholz, H. Eine neue Laus des Schimpansen. Z. Parasitenk., Berlin **12** 1941 pp. 107–119, 11 figs. [Anopl.]

877.—Fahringer, J. Zwei neue Braconinen aus der palaearktischen Region (Hymenoptera : Braconidae). Beitr. Ent., Berlin **1** 1951 pp. 65–69.

Faidherbe, J. *see* Sarlet, Faidherbe & Frenck.

878.—Fain, A. Simulies de l'Est congolais. Description de deux *Simulium* nouveaux. Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 1–11, 4 figs. [Dipt.]

879.—Fair, G. M., **Chang,** Shih L. & **Richart,** jr., F. E. Studies on Anopheline larvae. II. The mechanism involved in the flotation of larvae of *A. quadrimaculatus* on a water surface. J. nat. Malar. Soc., Savannah **10** 1951 pp. 293–305, 12 figs. [Dipt.]

880.—Fairchild, G. B. Descriptions and notes on Neotropical Tabanidae. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 441–462, 1 pl. [Dipt.]

881.—Fairchild, G. B. Some nomenclatorial notes on Psychodidae (Diptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 10–18.

882.—Fairchild, G. B. The generic names for Tabanidae (Diptera) proposed by Adolfo Lutz. Psyche, Cambridge, Mass. **57** (1950) 1951 pp. 117–127.

883.—Fairchild, G. B. & **Hertig,** M. Notes on the *Phlebotomus* of Panama (Diptera, Psychodidae) VI–VIII. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 523–533, 5 pls. ; **44** 1951 pp. 399–421, 7 figs., 422–429, 3 pls.

884.—Farský, R. On the variability of the Cicadine *Philaenus spumarius* L. (Rhynch. Cercop.). [In Czech with English summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 34–37, 1 fig.

885.—Fassati, M. Sur les espèces du genre *Amara* Bon., Sg. *Zezea* Cs. avec la dent médiane de l'éperon des protibias obtuse. Acta ent. Mus. nat. Prague **26** 1949 no. 361, 10 pp. 3 figs. [Col.]

886.—Fassati, M. Notes systématiques, zoogéographiques et faunistiques sur les Carabides de la Tchécoslovaquie et de la Pologne (V). [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 11–14.

Fattah Khalifa *see* Khalifa.

887.—Fattig, P. W. The Elateridae or click beetles of Georgia. Emory Univ. Mus. Bull., Georgia no. 10 1951 25 pp. [Col.]

888.—Faust, R. & **Buddenbrock,** W. von. Die Regulierung des Gleichgewichtes der höheren Dipteren durch die Halteren. Experientia, Basle **7** 1951 pp. 265–266, 1 fig.

Fay, R. W. *see* Jensen & Fay.

889.—[Fedotov, D. M.] Modifications de l'état interne de l'imago d'*Eurygaster integriceps* au cours de l'année. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 35–80, 6 figs. [Hem.]

890.—[Fedotov, D. M.] Etat d'*Eurygaster integriceps* durant la période de dépression numérique. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 3–18, 12 figs. [Hem.]

891.—[Fedotov, D. M.] Observations sur les interrelations entre *Eurygaster integriceps* et ses Phasiinae parasites ; considérations sur l'utilisation de ceux-ci dans la lutte contre cette punaise. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 49–66, 18 figs. [Hem.]

892.—Fender, K. M. The Malthini of North America (Coleoptera–Cantharidae). Amer. Midl. Nat., Notre Dame **46** 1951 pp. 513–629, 255 figs.

893.—Fender, K. M. A new species of *Acneus* (Coleoptera, Dascillidae). Proc. ent. Soc. Washington **53** 1951 pp. 271–272.

894.—Fennah, R. G. Further notes on Neotropical Cercopoidea. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 136–149, 5 figs. [Hem.]

895.—Fennah, R. G. Fulgoroidea of Fiji. Bull. Bishop Mus., Honolulu no. 202 1950 122 pp. 1 map 49 figs. [Hem.]

896.—Ferreira, M. C. Stenosini de Africa do Sul (Col. Tenebr.). Mem. Mus. Alvaro de Castro, Lourenço Marques no. 1 1950 pp. 91–97, 2 pls. (1 col.) 2 figs.

897.—Ferreira d'Almeida, R. Uma nova espécie de *Actinote* do sul do Brasil (Lepidoptera Heliconiidae, Acraeinae). Arq. Mus. nac., Rio de Janeiro **42** 1951 5 pp., 5 figs.

898.—Ferreira d'Almeida, R. Ligeiras observações sôbre o gênero *Cithaerias* Hübner, 1819 (Lep. Satyridae). Arq. Zool. São Paulo **7** 1951 no. 10 pp. 493–505, 2 pls. 1 fig.

899.—Ferreira d'Almeida, R. Algumas considerações sôbre os gêneros *Mechanitis* Fabr. e *Melinaea* Huebn. (Lep. Ithomiidae). Bol. Mus. nac., Rio de Janeiro (N.S.) Zool. no. 100 1951 27 pp., 5 pls.

900.—Ferreira d'Almeida, R. Algumas notas sôbre os géneros *Hypoleria* e *Napeogenes* (Lep. Ithomiidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 190–200, 11 figs.

901.—Ferreira d'Almeida, R. F. & **Oiticica,** J. The International Commission on Zoological Nomenclature and the name of the Monarch Butterfly. Science, Baltimore **113** 1951 pp. 728–729. [Lep.]

902.—Ferrière, C. Deux nouveaux parasites des oeufs de *Locusta migratoria migratorioides* en Afrique. Bull. Soc. ent. France, Paris **56** 1951 pp. 114–118, 3 figs. [Hym., Orth.]

903.—Ferrière, C. Chalcidiens orientaux introduits en Egypte (Hymenoptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 187–191, 2 figs.

905.—Ferris, G. F. The sucking lice. With the collaboration of C. J. Stojanovich. Mem. Pacific Coast ent. Soc., San Francisco **1** 1951 ix & 320 pp. 124 figs. multigr. [Anopl.]

906.—Fiasson, S. & **Simintzis,** G. Introduction dans la région lyonnaise du *Senotainia tricuspis* Meig., parasite larvaire de l'abeille (*Apis mellifica*). Bull. Soc. linn. Lyon **20** 1951 pp. 45–48, 1 map. [Dipt., Hym.]

907.—Fidler, J. H. *Aphis vaccinii* (Börner) (Hemiptera, Aphididae) new to the British Isles. A redescription and comparison with *Aphis callunae* Theobald. Proc. R. ent. Soc. London (B) **20** 1951 pp. 37–43, 4 figs.

908.—Fiedler, C. Die amerikanische Rüsslergattung *Bothrobatys* Schönh. (Col. Curc. Cryptorrhynch.). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 993–1008.

909.—Fiedler, C. Die Rüsslergattungen *Rhinochenus* und *Blaborhinus* (Col. Curc. Cryptorhynch.). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1102–1120.

910.—Fiedler, C. Revision der Rüsslergattung *Cleogonus* Schönh. (Col. Curc. Cryptorrynch.). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1201–1218.

911.—Fiedler, C. Neue südamerikanische *Gasterocercus* und *Cylindrothecus* (Col., Curcul. Cryptorhynch.). Zool. Anz., Leipzig **147** 1951 pp. 130–142.

912.—Fiedler, O. G. H. The South African biting midges of the genus *Culicoides* (Ceratopogonid., Dipt.). Onderstepoort J. vet. Res., Pretoria **25** 1951 no. 2 pp. 3–33, 11 pls. 2 figs.

913.—Field, W. D. A revision of *Eurema* Hübner subgenus *Teriocolias* Röber (Lepidoptera : Pieridae). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 359–373, 2 pls.

914.—Field, W. D. Moths of the genus *Paramulona* Hampson. Proc. U.S. nat. Mus., Washington **101** 1951 no. 3286 pp. 489–496, 2 figs. [Lep.]

915.—Figueiredo, jr., E. R. de. Uma nova praga das orquidáceas ; *Tenthecoris figueiredoi* Carvalho, 1950 (Hemiptera, Miridae, Bryocorinae). Arq. Inst. biol., São Paulo **20** 1951 pp. 249–253, 5 figs.

916.—[Filip'ev, N. N.] The winter fauna of Lepidoptera of Repetek. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 246–249.

917.—Fiori, G. Contributi alla conoscenza morfologica ed etologica dei Coleotteri. V. *Coptocephala küsteri* Kraatz e *Cryptocephalus frenatus* Laich. (Chrysomelidae). Boll. Ist. Ent. Bologna **18** 1951 pp. 182–196, 11 figs.

918.—Fiori, G. Alcuni appunti sui *Byrrhus* L. s. str. europei. II. Contributo alla conoscenza della famiglia Byrrhidae (Coloeptera). Boll. Ist. Ent. Bologna **18** 1951 pp. 293–304, 2 figs.

919.—Fischer, R. L. Observations on the nesting habits of Megachilid bees. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 46–50, 2 figs. [Hym.]

920.—Fischer-Piette, E. & **Fischer,** P. H. Sur le comportement de certains Diptères vis-à-vis des objets avoisinants. Bull. biol. Fr. Belg., Paris **85** 1951 pp. 85–87.

921.—Fisher, W. S. A new species of *Elaphidion* (Family Cerambycidae) from Cuba. Mem. Soc. cubana Hist. nat., Havana **20** 1951 pp. 77–79.

922.—Fisk, F. W. Studies on proteolytic digestion in adult *Aedes aegypti* mosquitoes. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 555–572.

923.—Flanders, S. E. The role of the ant in the biological control of Homopterous insects. Canad. Ent., Ottawa **83** 1951 pp. 93–98. [Hym., Hem.]

924.—Flanders, S. E. Mass culture of California red scale and its golden Chalcid parasites. Hilgardia, Berkeley, Cal. **21** 1951 pp. 1–42, 21 figs. [Hem.,,Hym.]

925.—Fleming, H. A new genus and species of Lithosiinae (moths) from Rancho Grande, North-central Venezuela. Zoologica, New York **36** 1951 pp. 183–184, 1 fig. [Lep.]

Fleming, H. *see* Beebe & Fleming.

Fleschner, C. A. *see* DeBach, Fleschner & Dietrick.

926.—Fletcher, D. S. *Eupithecia* Studies.—I. (Lepidoptera: Geometridae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1009–1026, 29 figs.

Flint, W. P. *see* Metcalfe & Flint.

927.—Floch, H. & **Abonnenc,** E. Les phlébotomes américains. Clef d'identification de 97 femelles connues. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 99–110, 7 pls. [Dipt.]

928.—Floch, H. & **Abonnenc,** E. Anophèles de la Guyane française. Arch. Inst. Pasteur Guyane Terr. Inini, Cayenne no. 236 1951 91 pp. 31 figs. [Dipt.]

929.—Floch, H. & **Abonnenc,** E. Sur la synonymie de quelques phlébotomes sud-américains. Publ. Inst. Pasteur Guyane Terr. Inini, Cayenne no. 212 1950 13 pp. [Dipt.]

930.—Flock, R. A. A new species of *Haplaxius,* with a key to California species (Homoptera : Cixiidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 169–171.

931.—Florenzano, G. Prospetto sistematico delle specie batteriche segnalate come entomosimbionti. Redia, Florence **34** 1949 pp. 125–159.

932.—Florey, E. Neurohormone und Pharmakologie der Arthropoden. Pflanzenschutzber., Vienna **7** 1951 pp. 81–141, 17 figs.

933.—Fluke, C. L. Some new tropical Syrphid flies with notes on others. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 439–454, 21 figs. [Dipt.]

934.—Fluke, C. L. Syrphid flies related to *Volucella scutellata* Macquart. Amer. Mus. Novit., New York no. 1503 1951 83 pp. 63 figs. [Dipt.]

935.—Fluke, C. L. The male genitalia of *Syrphus, Epistrophe* and related genera (Diptera, Syrphidae). Trans. Wisc. Acad. Sci. Arts Lett., Madison **40** 1950 pp. 115–148, 10 pls. Corrections in Ent. News, Lancaster, Pa. **62** 1951 pp. 217–218.

936.—Fodor, P. J. The specificity of the action of insect lipases. Enzymologia, The Hague **13** 1948 pp. 57–61.

937.—Fodor, P. J. The specificity of the lipases and esterases contained in the larvae of the silkworm (*Bombyx mori* L.). Enzymologia, The Hague **13** 1948 pp. 66–72. [Lep.]

938.—Foltin, H. Welche Arten der *Apamea (Hydroecia)-nictitans*-Gruppe kommen in Oberösterreich vor ? Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 139–145. [Lep.]

939.—Foltin, H. Biologische Beobachtungen aus Oberösterreich. Z. wien. ent. Ges., Vienna **36** 1951 pp. 12–16. [Lep.]

940.—Foltin, H. Etwas über die Biologie von *Lasiocampa quercus* L. Z. wien. ent. Ges., Vienna **36** 1951 pp. 52–54. [Lep.]

Forbes, R. S. *see* Webb & Forbes.

941.—Forbes, W. T. M. A draft key to *Epimecis* (Geometridae). Lepidopt. News, Connecticut **5** 1951 pp. 59–60.

942.—Ford, E. B. Early stages in allopatric speciation. Genetics, Palaeont. & Evol., Princetown, New Jersey 1949 pp. 307–314. [Lep.]

943.—Ford, L. T. The Plutellidae. Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 85–93, 1 col. pl. [Lep.]

944.—Forsslund, K.-H. Insektfynd på fjället Härjehågna. Norsk ent. Tidsskr., Oslo **8** 1951 pp. 196–202.

945.—Forster, W. Die Riodiniden der Ausbeuten Dr. Hönes aus China. Z. wien. ent. Ges., Vienna **36** 1951 pp. 62–66, 2 pls. [Lep.]

Forster, W. *see* Daniel, Forster & Osthelder.

Fournier, O. *see* Boulanger & Fournier.

946.—Frade, F. Considerações acerca da distribuição da fauna na Guiné Portuguese. An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 9–16.

947.—Franciscolo, M. Monografia del genere *Pselaphostena* mihi. Atti Soc. ital. Sci. nat., Milan **90** 1951 pp. 55–76, 1 map 33 figs. [Col.]

948.—Franciscolo, M. Una nuova *Mordella* dell' Albania (Col. Heteromera). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 7–9, 11 figs.

949.—Francke-Grosmann, H. Über eine bemerkenswerte Pappelblattwespe, *Stauronema compressicornis* (Fabr.) Benson. Z. PflKrankh., Ludwigsburg **58** 1951 pp. 20–25, 5 figs. [Hym.]

Franckiewicz, H. *see* Kałkowski, Rumek, Franckiewicz & Wojtusiak; Wojtusiak Kornaś & Franckiewicz.

950.—Franclemont, J. G. The species of the *Leucania unipuncta* group, with a discussion of the generic names for the various segregates of *Leucania* in North America (Lepidoptera, Phalaenidae, Hadeninae). Proc. ent. Soc. Washington **53** 1951 pp. 57–85, 41 figs.

Frank, M. B. *see* Birch, Park & Frank; Park & Frank.

951.—Frankenberg, G. von. Die Drohbewegung des Hornissen-Männchens und anderer Insekten. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 102–107, 2 figs. [Hym.]

952.—Franz, E. Neuere Ergebnisse über die Sprache der Bienen. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 157–162, 6 figs. [Hym.]

953.—Franz, H. Eine neue *Cionus*-Art aus Oesterreich (Coleopt., Curcul.). Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 124–125.

954.—Fraser, F. C. Mission A. Villiers au Togo et au Dahomey. V. Odonata and Neuroptera. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1076–1092, 1 fig.

955.—Fraser, F. C. Report on a collection of Odonata and Neuroptera from Senegal. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1093–1098.

956.—Fraser, F. C. A note on the synonymy of some species of Australian Gomphidae (Odonata). Ent. mon. Mag., London **87** 1951 pp. 254–255.

957.—Fraser, F. C. Outline of a new classification for the legion *Lestes* Selys (Order Odonata). Ent. News, Lancaster, Pa. **62** 1951 pp. 61–69, 4 figs.

958.—Fraser, F. C. The entomological fauna of the New Forest. II. Order Neuroptera. J. Soc. Br. Ent., Bournemouth **3** 1951 pp. 225–235.

959.—Fraser, F. C. Appendix to the Zygoptera of Madagascar. Mém. Inst. sci. Madagascar, Paris (A) **6** 1951 pp. 407–417, 5 figs. [Odon.]

960.—Fraser, F. C. Two new records of Odonata from the tertiary of Radoboj. Proc. R. ent. Soc. London (B) **20** 1951 pp. 51–52, 2 figs. [Fossil.]

961.—Fraser, F. C. Notes on Odonata in the Muséum national d'histoire naturelle. With descriptions of a new species and a new Zygopterous nymph. Rev. franç. Ent., Paris **18** 1951 pp. 93–101, 4 figs.

962.—Frazer, J. F. D. Notes on a colony of *Colias crocea* Fourcroy. Entomologist, London **84** 1951 pp. 25–29. [Lep.]

963.—Fredeen, F. J. H., **Rempel,** J. G. & **Arnason,** A. P. Egg-laying habits, overwintering stages, and life-cycle of *Simulium arcticum* Mall. (Diptera : Simuliidae). Canad. Ent., Ottawa **83** 1951 pp. 73–76.

964.—Freeborn, S. B. & **Bohart,** R. M. The mosquitoes of California. Bull. Calif. Ins. Surv., Berkeley & Los Angeles **1** 1951 pp. 25–78, 8 pls. [Dipt.]

965.—Freeman, H. A. Notes on the *Agave* feeders of the genus *Megathymus* (Lepidoptera, Rhopalocera, Megathymidae). Field & Lab., Dallas **19** 1951 pp. 26–32.

966.—Freeman, H. A. Distributional notes on the Theclinae of Arkansas. Field & Lab., Dallas **19** 1951 pp. 36–39. [Lep.]

967.—Freeman, H. A. Notes on the genus *Yvretta* Hemming with a new record for the United States (Lepidoptera, Rhopalocera, Hesperiidae). Field & Lab., Dallas **19** 1951 pp. 45–46.

968.—Freeman, H. A. New skipper records for Mexico (Lepidoptera, Rhopalocera, Hesperiidae). Field & Lab., Dallas **19** 1951 pp. 46–48.

969.—Freeman, H. A. Ecological and systematic study of the Hesperioidea of Texas. Sth. Methodist Univ., Dallas stud. no. 6 1951 67 pp. [Lep.]

970.—Freeman, P. Diptera of Patagonia and South Chile based mainly on material in the British Museum (Natural History). Part III —Mycetophilidae. London, Br. Mus. (Nat. Hist.) 1951 vii & 138 pp. 49 pls.

971.—Freeman, P. *Simulium* (Diptera Nematocera) Fam. Simuliidae. Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 77 1951 pp. 49–53.

972.—Freeman, P. The British species of *Tasiocera* Skuse (Diptera, Tipulidae). Proc. R. ent. Soc. London (B) **20** 1951 pp. 29–36, 4 figs.

973.—Freeman, P. Observations on the genus *Brunettia* Annandale (Dipt., Psychodidae), with descriptions of two new species. Proc. R. ent. Soc. London (B) **20** 1951 pp. 142–146, 2 figs.

974.—French, R. A. Lepidoptera at light in a Hertfordshire wood in July, 1949. Entomologist, London **84** 1951 pp. 49–55.

Frenck, G. *see* Sarlet, Faidherbe & Frenck.

975.—Freund, L. A bibliography of the Anoplura or sucking lice. Acta ent. Mus. nat. Pragae **26** 1949 no. 367, 28 pp.

976.—Frey, G. Die Libellen der schwäbisch-bayerischen Hochebene. Eine faunistische Uebersicht. Ent. Arb., Münich **2** 1951 pp. 104–115. [Odon.]

977.—Frey, R. Neue paläarktische *Rhamphomyia*-Arten III. Notul. ent., Helsinki **31** 1951 pp. 20–25. [Dipt.]

978.—Frey, W. Ueber das Auftreten der Minierfliege *Phytomyza rufipes* Mg. an Raps. Z. PflKrankh., Ludwigsburg **58** 1951 pp. 10–20, 10 figs. [Dipt.]

979.—Frick, K. E. *Liriomyza langei*, a new species of leaf miner of economic importance in California (Diptera : Agromyzidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 81–88, 2 figs.

980.—Frick, K. E. A satisfactory technique for rearing Agromyzid flies from the leaf mining larval stage (Diptera : Agromyzidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 187–189, 1 fig.

981.—Frick, K. E. Parthenogenetic reproduction in *Phytomyza plantaginis* R.-D., the second reported case in the family Agromyzidae. Science, Lancaster, Pa. **114** 1951 p. 576. [Dipt.]

982.—Friederichs, K. Ueber karnivore Elateridenlarven und ihre Bedeutung im Pflanzenschutz. Z. angew. Ent., Berlin **33** 1951 pp. 168–172. [Col.]

983.—Frieling, H. Die theoretischen Grundlagen der tierischen Farbmusters. Syllegomena biol. (Festschr. 80. Geburtst. O. Kleinschmidt), Leipzig 1950 pp. 125–142, 4 figs.

984.—Frings, H. & M. Addendum to " The loci of contact chemoreceptors in insects ". Amer. Midl. Nat., Notre Dame **45** 1951 p. 507.

985.—Frisch, K. von. Bees. Their vision, chemical senses and language. New York, Cornell Univ. Pr. 1950 xiii & 119 pp. 61 figs.

986.—Frisch, K. v. Recent advances in the study of the orientation of the honey bee. [English translations.] Bull. Anim. Behaviour, London no. 9 1951 pp. 1–33, illus.

987.—Frisch, K. v. Orientierungsvermögen und Sprache der Bienen. Naturwissenschaften, Berlin **38** 1951 pp. 105–112, 18 figs. [Hym.]

988.—Fritsch, R. H. Zur Biologie von *Cicindela maritima* Latr. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 296–304, 8 figs. [Col.]

989.—Frizzi, G. Dimorfismo cromosomico in *Anopheles maculipennis messaea*. Sci. genet., Torino **4** 1951 pp. 79–93, 4 figs. [Dipt.]

Fröhlich, G. *see* Mühle & Fröhlich.

990.—v. Froreich, Dr. Richtlinien für Fundortbezettelung. Ent. Z., Frankfurt a. M. **60** 1950 pp. 49–53, 59–61.

991.—v. Froreich, Dr. Beitrag zur Biologie von *Taragama repanda* Hbn. (Lep.). Ent. Z., Frankfurt a. M. **60** 1950 pp. 108–111, 185–187, 2 figs.

992.—Frota-Pessoa, O. *Drosophila* (*Hirtodrosophila*) *magnarcus* n. sp. (Diptera, Drosophilidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 407–411, 5 figs.

993.—Frota-Pessoa, O. & **Wheeler,** M. R. A revision of the genus *Neotanygastrella* Duda (Diptera, Drosophilidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 145–151, 3 figs.

994.—Fullaway, D. T. Review of the Indo-Australasian parasites of the fruit flies (Tephritidae). Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 243–250. [Hym.]

995.—Fuller, R. A., **Spinks,** J. W. T., **Arnason,** A. P. & **McDonald,** H. Use of radio-active tracers in investigations on soil-inhabiting insects. Rep. ent. Soc. Ontario, Toronto **81** (1950) 1951 pp. 7–15, 4 figs.

996.—Fulton, B. B. The seasonal succession of Orthopteran stridulation near Raleigh, North Carolina. J. Elisha Mitchell sci. Soc., Chapel Hill **67** 1951 pp. 87–95, 2 figs.

Fung *see* Sui Tong Fung.

Gabe, M. *see* Arvy & Gabe.

997.—Gacharná, G. C. Catálogo de Coleópteros colombianos. Rev. Acad. colomb. Cienc., Bogotá **8** 1951 pp. 221–229, 1 pl.

998.—Gacharná, G. C. Coccinellidos colombianos. Rev. Acad. colomb. Cienc., Bogotá **8** 1951 pp. 243–244, 1 pl. [Col.]

999.—Gad, A. M. The head-capsule and mouth-parts in the Ceratopogonidae (Diptera-Nematocera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 17–75, 109 figs.

1000.—Gahan, A. B. *Climacia areolaris* (Hagen) parasitised by a new Pteromalid (Hymenoptera: Chalcidoidea) I. Description of the parasite. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 100–102, 4 figs.

1001.—Gahan, A. B. Some synonymy and new combinations in Chalcidoidea (Hymenoptera). Canad. Ent., Ottawa **83** 1951 pp. 171–176.

Gahan *see* Chiarelli de Gahan.

1002.—Galindo, P., **Carpenter,** S. J. & **Trapido,** H. Ecological observations on forest mosquitoes of an endemic yellow fever area in Panama. Amer. J. trop. Med., Baltimore **31** 1951 pp. 98–137, 5 figs. [Dipt.]

1003.—Galindo, P., **Carpenter,** S. J. & **Trapido,** H. Descriptions of two new species of *Wyeomyia* and the male of *Sabethes tarsopus* Dyar and Knab (Diptera Culicidae). Proc. ent. Soc. Washington **53** 1951 pp. 86–96, 18 figs.

1004.—Galindo, P., **Carpenter,** S. J. & **Trapido,** H. Westward extension of the range of *Haemagogus spegazzinii falco* Kumm et al. into Costa Rica (Diptera, Culicidae). Proc. ent. Soc. Washington **53** 1951 pp. 104–106.

1005.—Galvagni, E. & **Ortner,** A. Ueber die Schmetterlingsfauna der Schmidawiesen bei Neu-Aigen sowie des Tullnerfeldes überhaupt (Zone 15 des Prodromus). Z. wien. ent. Ges., Vienna **35** 1950 pp. 159–162; **36** 1951 pp. 27–29, 70–74. [Lep.]

1006.—Galvão, A. B. Um novo caráter diferencial entre *A. minor* e *A. peryassui* na fase larvaria. Rev. bras. Malariol., Rio de Janeiro **3** 1951 pp. 363–364, 5 figs. [Dipt.]

1007.—Gambles, R. M. A dragonfly migration at Vom. Nigerian Field, Eversley, Hants **16** 1951 pp. 135–138, 1 pl. [Odon.]

1008.—Gamboa Amaral, L. de. Alguns Mantídeos de Guiné Portuguesa. An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 121–128. [Orth.]

1009.—Gander, R. Experimentelle und oekologische Untersuchungen über das Schlüpfvermögen der Larven von *Aëdes aegypti* L. Rev. suisse Zool., Geneva **58** 1951 pp. 215–278, 21 figs. [Dipt.]

1010.—Gansser, A. Dasselfliegen. Biologie, Schäden und Bekämpfung von Oestriden mit besonderer Berücksichtigung schweizerischer Verhältnisse. Zürich, Schweiz. Häuteschädenkomm. 1951 128 pp. 1 col. pl. 61 figs. [Dipt.]

García, M. *see* Del Ponte, Castro & García.

Garcia *see* Cabido Garcia.

1011.—Gardiner, P. Prothetely in *Ernobius mollis* L. (Coleoptera: Anobiidae). Proc. R. ent. Soc. London (A) **26** 1951 pp. 74–76.

1012.—Gardner, A. E. The life-history of *Sympetrum fonscolombii* Selys. Odonata–Libellulidae. Ent. Gaz., London **2** 1951 pp. 56–66, 4 figs.

1013.—Gardner, A. E. The life history of *Sympetrum danae* (Sulzer) =*S. scoticum* (Donovan) (Odonata). Ent. Gaz., London **2** 1951 pp. 109–127, 8 figs.

1014.—Gardner, A. E. The early stages of Odonata. Trans. S. London ent. nat. Hist. Soc. **1950-51** 1951 pp. 83–88, 6 pls.

1015.—Gardner, A. E. & **MacNeill,** N. The life history of *Pyrrhosoma nympula* (Sulzer) (Odonata). Ent. Gaz., London **1** 1950 pp. 163–182, 13 figs.

1016.—Gardner, E. J. & **Stott,** G. H. Genes producing a maternal effect and modifiers of tumorous head in " wild " and tumor bearing stocks of *Drosophila melangogaster*. Genetics, New York **36** 1951 pp. 72–83. [Dipt.]

1017.—Garrett-Jones, C. The Congo floor maggot, *Auchmeromyia luteola* (F.), in a laboratory culture. Bull. ent. Res., London **41** 1951 pp. 679–708, 1 pl. 9 figs. [Dipt.]

1018.—Gaschen, H. Note sur un Mallophage du bouquetin (*Bovicola ibicis* n. sp.). Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 191–196, 11 figs.

1019.—Gaul, A. T. A glossary of terms and phrases used in the study of social insects. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 473–484.

1020.—Gaul, A. T. Additions to Vespine biology VII–VIII. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 54–56, 73–74. [Hym.]

1021.—Gaul, A. T. A relation between temperature and wing beats. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 131–133.

1022.—Gaumont, R. Etudes embryologiques sur l'oeuf de cheimatobie *Operophtera brumata* L., Lepidoptère Geometridae. Ann. Inst. Rech. agron., Paris (Sér. C) Ann. Epiphyties **1** (1950) [1951] pp. 253–273, 11 figs.

1023.—Gebhardt, H. Lokalisatorischer Nachweis von Thermorezeptoren bei *Dorcus parallelepipedus* L. und *Pyrrhocoris apterus* L. Experientia, Basle **7** 1951 pp. 302–303. [Col., Hem.]

1024.—Gebien, H. Die Käfer des Niederelbegebietes und Schleswig-Holsteins. Teil VIII. Verh. Ver. naturw. Heimatsforsch. Hamburg **29** (1947) 1948 pp. 3–47. [Col.]

1025.—Gehlen, B. Neue Sphingiden. Ent. Z., Frankfurt a. M. **60** 1950 pp. 67–69, 2 figs. [Lep.]

1026.—Gehlen, B. Neue afrikanische Sphingiden. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 251–253, 4 figs. [Lep.]

1027.—Geigy, R. & **Ernst,** E. Einfluss der Luftfeuchtigkeit auf die Lebensdauer verschiedener Termitenarten im Hungerversuch. Rev. suisse Zool., Geneva **58** 1951 pp. 414–420. [Isopt.]

1028.—Geigy, R. & **Rahm,** U. Beiträge zur experimentellen Analyse der Metamorphose von *Sialis lutaria* L. (Megaloptera). Rev. suisse Zool., Geneva **58** 1951 pp. 408–413, 3 figs.

1029.—Geijskes, D. C. Notes on Odonata of Surinam. V. A new species of *Misagria* with a redescription of the genus (Odonata : Libellulidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 70–76, 1 fig.

1030.—Geitler, L. Das Wachstum des Zellkerns in tierischen und pflanzlichen Geweben. Ergebn. Biol., Berlin **18** 1941 pp. 1–54, 23 figs.

1031.—Geldiay, R. Etude comparée sur les faunes macroscopique et microscopique du barrage de tchoubouk et du lac d'Emir (voisinage d'Ankara). Commun. Fac. Sci. Univ. Ankara **2** 1949 pp. 151–199, 23 pls. 25 figs.

1032.—Gentilucci, T. La *Cacoecia rosana* L. nell'Emilia. Boll. Ist. Ent. Bologna **18** 1951 pp. 197–204, 5 figs. [Lep.]

1033.—[Gerasimov, A. M.] Larvae and pupae of Pyralids (Lepidoptera, Pyralididae). II. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 365–369.

1034.—[Gerasimov, A. M.] Description of the Pyralid *Chilo tadzhikiellus* Gerasimov and the owlet *Sesamia cretica striata* Stgr., injurious to sugar cane in Tadzhikistan. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 700–713, 9 figs. [Lep.]

1035.—Gerhardinger, K. *Thais rumina* subspec. *minima* nov. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 101–104, 107, 1 col. pl. [Lep.]

1036.—Gerhardt, R. W. The mosquitoes of Wyoming. [Abstract of thesis.] Univ. Wyo. Publ., Laramie **16** 1951 pp. 126–127. [Dipt.]

1037.—Gersdorf, E. Die Insektenfauna Hannovers und ihre Probleme. Beitr. Naturk. Niedersachs., Hanover no. 6 1949 pp. 23–30.

1038.—Gersdorf, E. & **Kuntze,** K. Künstliche Salzstellen um Hannover als Fundorte halobionter und halophiler Carabiden. Beitr. Naturk. Niedersachs., Hanover no. 4 1948 pp. 15–18. [Col.]

1039.—Geyer, J. W. C. The reproductive organs of certain termites, with notes on the hermaphrodites of *Neotermes*. Ent. Mem. Dep. Agric. S. Afr., Pretoria **2** 1951 pp. 233–325, 99 figs. [Isopt.]

1040.—Geyer, J. W. A comparison between the temperatures in a termite supplementary fungus garden and in the soil of equal depths. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 36–43, 3 figs. [Isopt.]

1041.—Ghabn, Abd El-Aziz Aly El-Sayed. Studies on the biology and control of *Epilachna chrysomelinae* F., in Egypt (Coleoptera–Coccinellidae). Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 77–106, 1 col. pl.

1042.—Ghani, M. A. & **Sweetman,** H. L. Ecological studies of the book louse, *Liposcelis divinatorius* (Mull.). Ecology, Lancaster, Pa. **32** 1951 pp. 230–244, 6 figs. [Psocopt.]

1043.—Ghélélovitch, S. Caractéristiques différentielles de trois souches de drosophiles à tumeurs (*Drosophila melanogaster* Meig.). C.R. Acad. Sci., Paris **232** 1951 pp. 1600–1602. [Dipt.]

1044.—Ghélélovitch, S. Influence de l'inanition sur la manifestation d'une tumeur héréditaire chez le drosophile (*Drosophila melanogaster*). C.R. Acad. Sci., Paris **232** 1951 pp. 1776–1778. [Dipt.]

1045.—Ghesquière, J. Synonymies nouvelles pour la famille des Obenbergerellidae (Hym. Scoliodea Tiphiidae Myrmosinae). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 238–241.

1046.—Ghidini, G. M. Protetelia ed eteromorfismo larvale. Boll. Soc. ent. ital., Genoa **81** 1951 pp. 86–87, 1 fig. [Col.]

1047.—Giaquinto-Mira, M. Notes on the geographical distribution and biology of Anophelinae and Culicinae in Etiopia. Riv. Malariol., Rome **29** 1950 pp. 281–313. [Dipt.]

Giavarini, I. *see* Vecchi & Giavarini.

1048.—Gillaspy, J. E. Nesting habits of *Steniolia nigripes* Parker (Hymenoptera : Sphecidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 167–168.

1049.—Gillett, J. D. The larva, pupa and adult male of *Aëdes* (*Stegomyia*) *ruwenzori* Haddow and van Someren (Diptera, Culicidae). Ann. trop. Med. Parasit., Liverpool **45** 1951 pp. 195–198, 1 fig.

Gillet, J. D. *see* Haddow, van Someren, Lumsden, Harper & Gillett.

Gillham, N. W. *see* Ehrlich & Gillham.

1050.—Gillies, M. T. Further notes on Ephemeroptera from India and south east Asia. Proc. R. ent. Soc. London (B) **20** 1951 pp. 121–130, 22 figs.

1051.—Ginter, O. La présence de plus rares Orthoptères en Moravie. [In Czech with French summary.] Ent. Listy, Brno **14** 1951 pp. 167–169.

1052.—Giordani Soika, A. Ritrovamento dell'*Epithalassius sanctimarci* Mik e del *Parathalassius blasigi* Mik nel litorale veneto e notizie sulla loro ecologia (Dipt., Dolichop. ed Empid.). Boll. Soc. ent. ital., Genoa **81** 1951 p. 31.

1053.—Gisin, H. La biocénotique. Année biol., Paris **55** 1951 pp. 81–88. [Collemb.]

1054.—Gisin, H. *Anurida* (*Anuridella*) *germanica* nov. sp. (Collembola). Kieler Meeresforsch. **8** 1951 p. 58.

1055.—Gisin, H. Neue Forschungen über Systematik und Ökologie der Collembolen. Naturwissenschaften, Berlin **38** 1951 p. 549.

Gisin, H. *see* Delamare-Debouteville & Gisin.

1056.—Glaçon, S. & **La Masne,** G. Une méthode d'élevage et de transport des Coléoptères cavernicoles. C.R. Acad. Sci., Paris **232** 1951 pp. 1027–1029.

1057.—Glen, R. Organisation of a scientific paper. Canad. Ent., Ottawa **83** 1951 pp. 99–106.

1058.—Gloor, H. Kältepolyploidie in Ganglienzellen von *Drosophila hydei*. Rev. suisse Zool., Geneva **58** 1951 pp. 520–521, 1 fig. [Dipt.]

1059.—Gloyd, L. K. Records of some Virginia Odonata. Ent. News, Lancaster, Pa. **62** 1951 pp. 109–114.

1060.—Godan, D. Die Miniertätigkeit der Larven des Rapserdflohes (*Psylliodes chrysocephala* L.). Z. angew. Ent., Berlin **32** 1951 pp. 458–475, 19 figs. [Col.]

1061.—Goetghebuer, M. Chironomini (Diptera) communs à la région paléarctique et à la région néarctique. Biol. Jaarb., The Hague **18** 1951 pp. 77–81.

1062.—Goetsch, W. Ein neues Gastverhältnis zwischen Ameisen-Staaten. Jber. schles. Ges. vaterl. Cult., Breslau **116** (1943) 1944 pp. 1–14, 5 figs. [Hym.]

1063.—Goetsch, W. Probleme der Formbildung. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 199–217, 4 figs.

1064.—Goetsch, W. Ameisen- und Termiten-Studien in Ischia, Capri und Neapel. Zool. Jb., Jena Syst. **80** 1951 pp. 64–98, 2 figs. [Hym., Isopt.]

1065.—Goffe, E. R. The Syrphidae (Diptera) described by Moses Harris in 1776. Entomologist, London **84** 1951 pp. 195–204.

1066.—Goffe, E. R. On the use of abbreviations or contractions when citing the authors of scientific names. J. Soc. Br. Ent., Bournemouth **3** 1951 pp. 235–240, 281–282.

1067.—Goffe, E. R. Flower preference and colour perception in butterflies. J. Soc. Br. Ent., Bournemouth **3** 1951 pp. 240–241. [Lep.]

1068.—Goffe, E. R. *Syrphus tarsalis* Schummel, 1836, homonym of *Syrphus tarsalis* Walker, 1836 (Diptera, Syrphidae). J. Soc. Brit. Ent., Bournemouth **3** 1951 pp. 273–274.

1069.—Goffe, E. R. *Tubifera vitripennis* (Strobl, 1893) = *Eristalis vitripennis* Strobl, 1893 (Diptera, Syrphidae), not a British species. J. Soc. Brit. Ent., Bournemouth **3** 1951 pp. 275–276.

1070.—Goidanich, A. La stambecco delle Alpi (*Capra ibex*) ospite del *Melophagus rupicaprinus* Rondani (Diptera, Hippoboscidae). Atti Accad. Sci. Torino **85** 1951 pp. 273–279, 1 fig.

1071.—Goidanich, A. La cecidoforia : fenomeno etologico nuovo. Atti Accad. Sci. Torino **85** 1951 pp. 312–316, 1 fig.

1072.—Golbach, R. Aparato para la recolección de Tisanoptera. Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 187–189, 1 fig.

1073.—Goldring, W. Handbook of Palaeontology for beginners and amateurs. Part I. The fossils. Handb. New York St. Mus., Albany no. 9 1950 394 pp. 97 figs.

1074.—Goldschmidt, E. Deleterious genes in wild *Drosophila melanogaster* from Israel. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 201–205, 1 fig. [Dipt.]

1075.—Goldschmidt, R. B. The maternal effect in the production of the Bd-M-intersexes in *Drosophila melanogaster*. J. exp. Zool., Philadelphia **117** 1951 pp. 75–110, 4 figs. [Dipt.]

1076.—Goldschmidt, R. B. Eine weitere Bemerkung über "Glühwürmer und Evolution". Naturwissenschaften, Berlin **38** 1951 pp. 437–438. [Dipt.]

1077.—Goldschmidt, R. B. New heteromorphoses in *Drosophila melanogaster* Meig. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 1–11, 2 figs. [Dipt.]

1078.—Goldschmidt, R. B., **Hannah,** A. & **Piternick,** L. K. The podoptera effect in *Drosophila melanogaster*. Univ. Calif. Publ. Zool., Berkeley **55** 1951 pp. 67–290, 1 pl. 36 figs.

1079.—Goldstein, L. Action de facteurs transmissibles sur certaines modalités de la sensibilité héréditaire à l'anhydride carbonique chez la Drosophile. Année biol., Paris **55** 1951 pp. 359–363. [Dipt.]

1080.—Gomes Alves, M. L. Alguns Coléopteros hispídeos (Chrysomelidae) e Buprestídeos da Guiné Portuguesa. An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 105–120, 8 figs.

1081.—Gomes Alves, M. L. Alguns Licídeos (Ins. Col.) da Guiné portuguesa. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2 1951 pp. 233–236.

1082.—Gomes Costa, R. & **Redaelli,** D. C. Cochonilhas ou coccideas do Rio Grande do Sul. Bol. Soc. Agric. Rio Grande do Sul, Brazil Sér. C. no. 152 1949 107 pp., 68 figs.

1083.—Gontarski, H. Ein Vitamin C oxydierendes Ferment der Honigbiene. Z. Naturf., Wiesbaden **3b** 1948 pp. 245–249. [Hym.]

1084.—Gonzalez Sol, R. Resumen histórico de las ciencias naturales en Guatemala. An. Soc. Geogr. Hist. Guatemala **25** 1951 pp. 14–28.

1085.—Gonzalez Vicente, D. Distribución y clasificación de las moscas del género *Glossina*, de la Zona sanitaria de San Carlos de Fernando Póo. Rev. Sanid. Hig. públ., Madrid **22** 1948 pp. 254–260, 7 figs. [Dipt.]

1086.—Goodson, A. L. New varieties of British butterflies. Entomologist, London **84** 1951 p. 30. [Lep.]

1087.—Goodwin, T. W. Biochemistry of locusts. 7. Biochem. J., Cambridge **49** 1951 pp. 86–87. [Orth.]

1088.—Goodwin, T. W. & **Srisukh,** S. The biochemistry of locusts. 1, 2, 5, 6. Biochem. J., Cambridge **45** 1949 pp. 263–268, 472–479, figs. ; **48** 1951 pp. 199–203, 3 figs. ; **49** 1951 pp. 84–86, 2 figs. [Orth.]

1089.—Goodwin, T. W. & **Srisukh,** S. A biochemical description of locust coloration. Biochem. J., Cambridge **46** 1950 p. xvii. [Orth.]

1090.—Gorter, A. J. Uitbreiding van het vlieggebied van verschillende Macrolepidoptera. Ent. Ber., Amsterdam **13** 1951 pp. 321–323.

1091.—Gösswald, K. Die rote Waldameise im Dienste der Waldhygiene. Forstwirtschaftliche Bedeutung, Nutzung, Lebensweise, Zucht, Vermehrung und Schutz. Lüneberg, M. Kinau Verlag [1951] 160 pp. **6** col. pls. 52 figs. [Hym.]

1092.—Gösswald, K. Zur Biologie, Ökologie und Morphologie einer neuen Varietät der kleinen roten Waldameise : *Formica minor pratensoides*. Z. angew. Ent., Berlin **32** 1951 pp. 433–457, 4 figs. [Hym.]

1093.—Gösswald, K. Anlage einer Station zur Massenzucht von Königinnen der Kleinen Roten Waldameise. Z. angew. Ent., Berlin **33** 1951 pp. 77–104, 13 figs. [Hym.]

1094.—Gösswald, K. Ueber den Lebensablauf von Kolonien der roten Waldameise. Zool. Jb., Jena Syst. **80** 1951 pp. 27–63, 6 figs. [Hym.]

1095.—Gösswald, K. Zur Ameisenfauna des Mittleren Maingebietes mit Bemerkungen über Veränderungen seit 25 Jahren. Zool. Jb., Jena Syst. **80** 1951 pp. 507–532, 6 figs. [Hym.]

1096.—Gösswald, K. Versuche zum Sozialparasitismus der Ameisen bei der Gattung *Formica* L. Zool. Jb., Jena Syst. **80** 1951 pp. 533–582. [Hym.]

1097.—Götz, B. Die Sexualduftstoffe an Lepidopteren. Experientia, Basle **7** 1951 pp. 406–418, 8 figs.

1098.—Götz, B. Ueber die tageszeitliche Konstanz beim Ausschlüpfen von Lepidopteren. Zool. Jb., Jena Zool. **62** 1951 pp. 355–365, 5 figs.

1099.—Gouin, F. L'appareil buccal de *Braula caeca* Nitzsch (Dipt. Cycl.) et la position systématique de cette espèce. Arch. Zool. exp. gén., Paris Notes et Rev. **88** 1951 pp. 123–130, 5 figs.

1100.—Gouin, F. L'appareil buccal de *Braula coeca*. C.R. Acad. Sci., Paris **232** 1951 pp. 1774–1775, 1 fig. [Dipt.]

1101.—Goustard, M. Sur le comportement de *Blattella germanica* dans quelques bandes du spectre. Experientia, Basle **7** 1951 pp. 156–160, 10 figs. [Orth.]

1102.—Goux, L. Notes sur les Coccides (Hem. Coccoidea) de la France (41e note). Etude d'un *Diaspidiotus* nouveau des environs de Marseille. Bull. Soc. ent. France, Paris **56** 1951 pp. 10–14, 8 figs.

1103.—Gozmány, L. A. Neue Kleinschmetterlinge I. Folia ent. hungar., Budapest (N.S.) **4** 1951 pp. 17–24, 2 figs. [Lep.]

1104.—Gozmány, L. A. New Microlepidoptera II. Folia ent. hungar., Budapest (N.S.) **4** 1951 pp. 69–72, 2 figs.

1105.—Graaf Bentinck, I. G. A. Faunistische aantekeningen betreffende Nederlandse Lepidoptera. Tijdschr. Ent., Amsterdam **94** 1951 pp. 327–337.

1106.—Grabe, A. Planmässiges Sammeln von Microlepidopteren. Ent. Z., Frankfurt a. M. **61** 1951 pp. 78–87, 93–96, 101–104, 110–112, 127.

Graham, M. W. R. de V. *see* Stelfox & Graham.

1107.—Grandi, G. Introduzione allo studio dell' entomologia. Vol. I. Organizzazione-sviluppo-vita Apterigoti ed Esopterigoti 950 pp. 780 figs. Vol. II. Endopterigoti 1332 pp. 1198 figs. Bologna, 1951.

1108.—Grandi, M. Contributi allo studio dei Plecotteri. II. Boll. Ist. Ent. Bologna **18** 1950 pp. 30–57, 17 figs.

1109.—Grandi, M. Contributi allo studio degli Efemeroidei italiani. XIV–XVI. Boll. Ist. Ent. Bologna **18** pp. 58–92 (1950) 21 figs., pp. 117–127 (1951), 7 figs., p. 181.

1110.—Grandi, M. Contributi allo studio degli Efemeroidei esotici I. Boll. Ist. Ent. Bologna **18** 1951 pp. 173–180, 5 figs.

1111.—Grandori, R. & L. & **Carè,** E. Sulla presenza di cellule giganti nel sistema nervoso centrale di *Musca domestica* L. Boll. Zool. agrar. bachic., Turin **17** 1951 pp. 93–99, 1 pl.

1112.—Grassé, P. P. [Ed.] Traité de zoologie. Anatomie, systématique, biologie. Tome X. Insectes supérieurs et Hémiptéroides. Paris, Masson & Cie 1951 fasc. 1 [9&] pp. 1–975 [+1]; fasc. 2 pp. 976–1948, 1648 figs.

1113.—Grassé, P. P. Biocénotique et phénomène social. Année biol., Paris **55** 1951 pp. 153–160.

1113A.—Grassé, P. P. Notes sur la biologie d'un Collembole *Hypogastrura armata* (Nicolet). Ann. Soc. ent. France, Paris **91** 1922 pp. 190–192.

1114.—Grassé, P. P. & **Hollande,** A. Recherches sur les symbiotes des termites Hodotermitidae Nord-Africains. I–III. Ann. Sci. nat., Paris (11) **13** 1951 pp. 1–32, 5 pls. 7 figs. [Isopt.]

1115.—Grassé, P. P. & **Noirot,** C. La sociotomie : Migration et fragmentation de la termitière chez les *Anoplotermes* et les *Trinervitermes*. Behaviour, Leiden **3** 1951 pp. 146–166, 1 pl. 5 figs. [Isopt.]

1116.—Gravestein, W. H. Over *Graphosoma italicum* (Muell.). Ent. Ber., Amsterdam **13** 1951 pp. 252–253. [Hem.]

1117.—Gray, P. H. H. Results of humidity tests with *Papilio* pupae. Lepidopt. News, Connecticut **5** 1951 p. 67.

1118.—[Greben'shchikov, O.] Contribution to the knowledge of the high mountain fauna of grasshoppers (Orthoptera) in eastern Jugoslavia. [In Serbian.] Sborn. Rad. Inst. Ecol. Sopsk. Akad. Nauk, Belgrade **1** 1950 pp. 181–195, 5 maps.

Greca *see* La Greca.

Green, G. W. *see* Wellington, Sullivan & Green.

1119.—Green, J. Observations on *Cafius xantholoma* Gr. (Col., Staphylinidae). Ent. mon. Mag., London **87** 1951 pp. 110–112, 5 figs.

1120.—Green, J. W. The Lycidae of the United States and Canada. III. The tribe Platerodini (in part) (Coleoptera). Trans. Amer. ent. Soc., Philadelphia **77** 1951 pp. 1–20, 2 pls.

1121.—Greenberg, J. Some nutritional requirements of adult mosquitoes (*Aedes aegypti*) for oviposition. J. Nutrition, Philadelphia **43** 1951 pp. 27–35, 2 figs. [Dipt.]

1122.—Gregg, R. E. Two new species of exotic ants. Psyche, Cambridge, Mass. **58** 1951 pp. 77–84, 3 figs. [Hym.]

1123.—Grégoire, C. Virus-like bodies in the blood of the house cricket. J. gen. Microbiol., London **5** 1951 pp. 121–123, 1 pl. [Orth.]

1124.—Gregor, F. & **Povolný,** D. Contribution à la faune Lépidoptérologique de la Tchécoslovaquie. [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 74–80, 11 figs.

1125.—Gregor, F. & **Povolný,** D. The members of *Lithocolletis* Hb. mining *Acer* and *Alnus*. [In Czech with English summary.] Ent. Listy, Brno **13** 1951 pp. 129–144, 3 col. pls. 78 figs. [Lep.]

Gregor, F. *see* Povolný & Gregor.

1126.—Grenier, P. & **Ovazza,** M. Simulies du Moyen-Congo. Bull. Soc. Path. exot., Paris **44** 1951 pp. 222–234, 5 figs. [Dipt.]

1127.—Grenier, G. & **Rageau,** J. Simuliidae de la région de Poitiers. Description de *Cn. tredecimatum* (Edw.) et remarques concernant le genre *Cnephia* End. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 366–375, 2 figs. [Dipt.]

1128.—Grensted, L. W. A note on the trivial *nigrita* and *nigritus*. Ent. mon. Mag., London **87** 1951 pp. 251–252.

1129.—Gressitt, J. L. Longicorn beetles from New Guinea and the South Pacific (Coleoptera : Cerambycidae). I, II. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 1–30, 1 pl., 201–212.

1130.—Gressitt, J. L. Indian Longicorn beetles (Coleoptera Cerambycidae). Part I. Indian For. Rec., Dehra Dun (N.S.) Ent. **8** 1950 pp. 9–11.

1131.—Gressitt, J. L. Longicorn beetles of China. Longicornia, Paris **2** 1951 pp. 1–667, 22 pls. 1 map. [Col.]

1132.—Gressitt, J. L. Longicorn beetles from the Ryukyu Islands (Coleoptera : Cerambycidae). Philipp. J. Sci., Manila **79** (1950) 1951 pp. 193–235, 5 figs.

Gressitt, J. L. *see* Bohart & Gressitt.

1133.—Gridelli, E. La sistematica degli Xantholinini. Terzo contributo. Le specie affini allo *Xantholinus tricolor* Fab. (Coleopt. Staphyl.). Atti Mus. Stor. nat. Trieste **18** 1950 pp. 1–12, 1 pl. 1 map.

1134.—Gridelli, E. Il problema delle specie a diffusione transadriatica con particolare riguardo ai Coleotteri. Mem. Biogeogr. adriat., Venice **1** 1950 pp. 7–299, 52 figs.

1135.—Gridelli, E. Coléoptères de l'Afrique tropicale (XVIIIème contribution). Note sur quelques Ténébrionides appartenant aux collections de l'Institut français d'Afrique noire. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 211–231, 1 pl.

1136.—Griesheim, I. von. *Anthocharis damone* im Ätnagebiet. Ent. Z., Frankfurt a. M. **60** 1950 pp. 25–29. [Lep.]

Griffen, A. B. *see* Warters & Griffen.

1137.—Griffin, F. J. A bibliography of the Isoptera (termites) 1758–1949. J. Soc. Bibliogr. nat. Hist., London **2** 1951 pp. 261–368.

1138.—[Grinfel'd, É. K.] Hormonal factors affecting the discharge of silk in the oak silkworm (*Antheraea pernyi* Guér.). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 155–156. [Lep.]

1139.—Griot, M. Método para estudios morfológicos de Himenópteros parásitos. Publ. Inst. Sanid. veg., Buenos Aires (B) **7** 1951 no. 21, 8 pp. 10 figs.

1140.—Groot, A. P. de. Effect of a protein containing diet on the longevity of caged bees. Proc. K. ned. Akad. Wet., Amsterdam **54C** 1951 pp. 272–274. [Hym.]

1141.—Grosch, D. S. Growth in *Habrobracon*. Growth, Philadelphia **12** 1948 pp. 243–254. [Hym.]

1142.—Grosch, D. S. Octonucleate and uninucleate structural units : cytological contrasts in the larval and adult midguts of the parasitic wasp, *Habrobracon*. [Abstract.] J. Elisha Mitchell sci. Soc., Chapel Hill **67** 1951 pp. 184–185. [Hym.]

1143.—Gross, G. F. On three new genera and species of Schizopterinae (Heteroptera – Cryptostemmatidae) from Australia. Rec. S. Aust. Mus., Adelaide **9** 1951 pp. 535–544, 2 figs.

1144.—Gross, J. Die Schmetterlinge der weiteren Umgebung der Stadt Hannover. Erster Nachtrag zu dem Verzeichnis von 1930. Jber. naturhist. Ges. Hannover **99-101** 1950 pp. 183–321. [Lep.]

1145.—Groth, K. Die Wirkung des künstlichen Lichtes auf Nachtfalter. Z. Lepid., Krefeld **1** 1951 pp. 95–99.

1146.—Grout, R. A. (Ed.) The hive and the honey bee. Illinois, Dadant & Sons 1949 xviii & 652 pp. 305 figs.

1147.—Grundmann, A. W. Notes on *Andricus pilula* Bassett (Hymenoptera, Cynipidae), producing a vernal gall on *Quercus gambelii* Nuttall in northern Utah. J. Kans. ent. Soc., Manhattan **24** 1951 pp. 28–30.

1148.—[Grunin, K. Ya.] A representative of the genus *Cordylobia* Grünb. (Diptera, Calliphoridae) in the USSR. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 440–442, 2 figs.

1149.—[Grunin, K. Ya.] Contribution to the question of the migration of botflies to a new host. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 85–89, 3 figs. [Dipt.]

1150.—[Grunin, K. Ya.] Larvae of the first instar of gadflies of the families Oestridae and Hypodermatidae and their significance for the establishment of phylogeny. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 225–271, 90 figs. [Dipt.]

Gubar', V. V. *see* Petrishcheva & Gubar'.

1151.—Guelmino, D. J. The physiology of *Anopheles maculipennis* during hibernation. An attempt to interpret the phenomenon of gonotrophic dissociation. Ann. trop. Med.

Parasit., Liverpool **45** 1951 pp. 161–168, 2 figs. [Dipt.]

1152.—Guénin, H. A. La formule chromosomiale des Coléoptères Ténébrionidés nord-africains. I. Piméliinés et Tentyriinés. Bull. Soc. vaud. Sci. nat., Lausanne **65** 1951 pp. 7–18, 62 figs.

1153.—Guénin, H. A. La formule chromosomiale de Coléoptères Ténébrionidés nord-africains. II. Erodiinés. Rev. suisse Zool., Geneva **58** 1951 pp. 471–475, 21 figs.

1154.—Guénin, H. A. & **Scherler,** M. La formule chromosomiale du Doryphore *Leptinotarsa decemlineata* Stål. Rev. suisse Zool., Geneva **58** 1951 pp. 359–370, 19 figs. [Col.]

1155.—Guennelon-Aubanel, G. Remarques sur l'origine des gaines de nutrition d'un Hémiptère phytophage, *Pseudococcus citri* Risso. C.R. Acad. Sci., Paris **232** 1951 pp. 559–560.

1156.—Guennelon-Aubanel, G. Observations sur le cycle évolutif de *Rhynchites coeruleus* de Geer (Col. Curculion.). C.R. Acad. Sci., Paris **232** 1951 pp. 656–658.

1157.—Guérin, J. Megalopodides américains des collections du Musée Frey (Col. Phytophaga). Ent. Arb., Munich **2** 1951 pp. 576–578, 3 figs.

1158.—Guiglia, D. Note sopra alcuni Imenotteri aculeati della Libia (Scoliidae, Sphecidae). Ann. Mus. libico Stor. nat., Tripoli **2** 1940 pp. 277–293, 5 figs.

1159.—Guiglia, D. Gli imenotteri della Libia (Sphecidae, Pompilidae, Scoliidae, Vespidae, Apidae). Ann. Mus. libico Stor. nat., Tripoli **3** 1942 pp. 227–249.

1160.—Guiglia, D. Nuovi *Eumenes* italiani (Hymen. Eumenidae). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 27–30, 4 figs.

1161.—Guiglia, D. Hyménoptères récoltés par une mission suisse au Maroc (1947). Scoliidae et Tiphiidae. Bull. Soc. Sci. nat. Maroc, Rabat **29** (1949) 1951 pp. 285–293.

1162.—Guiglia, D. Sopra alcune Scoliidei africani del Museo di Parigi (Hymenoptera, Scoliidae). Doriana, Genoa **1** 1951 no. 13, 10 pp.

1163.—Guignot, F. Un nouveau *Copelatus* (Col., Dytiscidae) du Venezuela. Acta biol. venezuel., Caracas (Secc. Biol.) **1** 1951 pp. 47–48. [Col.]

1164.—Guignot, F. Trente-septième note sur les Hydrocanthares (Col.). Bull. Soc. ent. France, Paris **56** 1951 pp. 21–25, 3 figs.

1165.—Guignot, F. Dytiscides récoltés au Groenland par les Expéditions polaires françaises, P.-E. Victor (1949). Bull. Soc. ent. Mulhouse **1951** 1951 pp. 12–13. [Col.]

1166.—Guignot, F. Trente-huitième note sur les Hydrocanthares. Bull. Soc. linn. Lyon **20** 1951 pp. 83–88. [Col.]

1167.—Guignot, F. Résultats de la Mission Zoologique Suisse au Cameroun. Dytiscides et Gyrinides. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 p. 215.

1168.—Guignot, F. Description de deux Dytiscides malgaches nouveaux (Coléoptères). Nat. malgache, Tananarive **3** 1951 pp. 125–128, 4 figs.

1169.—Guignot, F. *Hydaticus* nouveaux de la collection Régimbart. Rev. franç. Ent., Paris **18** 1951 pp. 21–24. [Col.]

1170.—Guignot, F. Nouveaux Dytiscidae et Gyrinidae du Congo belge. Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 78–81. [Col.]

Guiguet, C. J. *see* Carl, Guiguet & Hardy.

1171.—Guilianelli, E. Contributo alla conoscenza del *Ceuthorrynchus picitarsis* Gyllh. Boll. Ist. Ent. Bologna **18** 1950 pp. 24–29, 3 figs. [Col.]

1172.—Gunst, J. H. de. Colour variations in some beetles of the genus *Criocerus* Müller (Chrysomelidae). Idea, Bogor **9** 1951 pp. 31–33, 14 figs. [Col.]

1173.—Günther, V. Remarques sur le sousgenre *Gynopterus* Muls. et Rey (Col., Ptinidae). [In Czech and French.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 14–19.

1174.—Gupta, G. C. Sen. Effect of hosts on the egg coloration of the parasite *Bracon gelechiae* Ashmead (Braconidae). Nature, London **168** 1951 p. 793. [Hym.]

1175.—Gupta, J. Das. Meiosis in three genera of Indian Heteroptera. Current Sci., Bangalore **19** 1950 pp. 323–324, 8 figs.

1176.—Gupta, P. D. On the structure, development and homology of the female reproductive organs of *Dysdercus cingulatus* (Fabr.) (Heteroptera). Indian J. Ent., New Delhi **11** (1949) 1951 pp. 131–142, 8 figs.

1177.—Gurney, A. B. On *Dicranostomus*, a remarkable Peruvian genus of Katydids; and notes on other insects having elongate mandibles (Orthoptera: Tettigoniidae). Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 546–554, 2 pls.

1178.—Gurney, A. B. The names of the field and house crickets. J. econ. Ent., Menasha **44** 1951 p. 611. [Orth.]

1179.—Gurney, A. B. Revision of the North American grasshoppers of the *Conalcaea* complex. Proc. U.S. nat. Mus., Washington, D.C. **101** 1951 no. 3277 pp. 277–304, 65 figs. [Orth.]

1180.—Gurney, A. B. Praying Mantids of the United States : native and introduced. Rep. Smithson. Instn., Washington, D.C. **1950** 1951 pp. 339–362, 9 pls. [Orth.]

1181.—[**Gusev,** A. V.] Contribution to the parasitic fauna of the Ussuri racoon (*Nyctereutes procyonoides* Gray, 1834). [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR., Leningrad **13** 1951 pp. 96–104. [Malloph.]

1182.—Guthörl, P. Zur Arthropoden-Fauna des Karbons und Perms. 12. Insekten- und Arthropleura-Reste aus der Tiefbohrung 38 (Hangard) bei Neukirchen-Saar. Paleont. Z., Berlin **22** 1941 pp. 109–119, 1 pl. 3 figs. [Fossil.]

1183.—Gutiérrez, R. El género *Liogenys* en Chile (Coleoptera, Scarabaeidae). Rev. chil. Ent., Santiago **1** 1951 pp. 129–145, 8 figs.

1184.—Gutiérrez Alonso, R. Notas sobre Scarabaeidae neotrópicos II (Coleopt. Lamellic.). An. Soc. cient. argent., Buenos Aires **151** 1951 pp. 105–125, 20 figs.

1185.—[**Gutzevich,** A. V.] Contribution to the anatomy of *Leptoconops borealis* Gutz. (Diptera, Heleidae). [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 151–164, 12 figs.

1186.—Györfi, J. Die Schlupfwespen und der Unterwuchs des Waldes. Z. angew. Ent., Berlin **33** 1951 pp. 32–47. [Hym.]

1187.—Haaf, E. Ueber die Verbreitung von *Zygaena fausta* L. im mittleren Main- und Taubertal. Ent. Z., Frankfurt a. M. **61** 1951 pp. 89–92. [Lep.]

1188.—Haas, J. N. Cytoplasmic growth in the muscle fibres of larvae of *Drosophila melanogaster*. Growth, Menasha **14** 1950 pp. 277–294, 3 figs. [Dipt.]

1189.—Hack, W. H. Contribucíon al estudio de los Tabánidos argentinos (Diptera). An. Inst. Med. reg., Tucumán **3** 1951 pp. 157–184, 59 figs.

1190.—Hackman, R. H. The chemical composition of the wax of the white wax scale, *Ceroplastes destructor* (Newstead). Arch. Biochem. Biophys., New York **33** 1951 pp. 150–154. [Hem.]

1191.—Haddow, A. J., **van Someren,** E. C. C., **Lumsden,** W. H. R., **Harper,** J. O. & **Gillett,** J. D. The mosquitoes of Bwamba County, Uganda. VIII. Bull. ent. Res., London **42** 1951 pp. 207–238. [Dipt.]

1192.—Hadon, E. Developmental action of lethal factors in *Drosophila*. Advances Genet., New York **4** 1951 pp. 53–85. [Dipt.]

1193.—Hadorn, E. & **Mitchell,** H. K. Properties of mutants of *Drosophila melanogaster* and changes during development as revealed by paper chromatography. Proc. nat. Acad. Sci. U.S.A., Washington, D.C. **37** 1951 pp. 650–665, 5 figs. [Dipt.]

1194.—Haeger, E. Ein Beitrag zur Kenntnis der Grossschmetterlingsfauna Brandenburgs. Z. Lepid., Krefeld **1** 1951 pp. 157–158. [Lep.]

Haeger, J. S. *see* Thurman, Haeger & Mulrennan.

1195.—Hafez, Mostafa. Notes on the introduction and biology of *Microplitis demolitor* Wilk. (Hymenoptera, Braconidae). Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 107–121, 6 figs.

1196.—Hageman, D. C. Notes on the distribution and habits of the two species of *Arphia* (Orthoptera, Acrididae) that occur in New York and New Jersey. J. New York ent. Soc. **59** 1951 pp. 111–114.

1197.—Hagerup, O. Pollination in the Faroes—in spite of rain and poverty in insects. [In Danish with English summary.] Biol. Medd., Copenhagen **18** 1951 48 pp. 74 figs.

1198.—Haget, A. Mise en évidence d'un pouvoir régulateur de l'ectoblaste dans le germe du Coléoptère *Leptinotarsa*. C.R. Acad. Sci., Paris **232** 1951 pp. 1446–1448.

1199.—Haget, A. Quelques précisions sur le phénomène d'induction dans la morphogénèse de l'intestin moyen chez l'embryon de *Leptinotarsa* (Insecta, Col.). C.R. Acad. Sci., Paris **232** 1951 pp. 2480–2482, 4 figs.

1200.—Haget, A. L'élevage au laboratoire de *Thanasimus formicarius* L. (Col. Cléride), prédateur des Bostryches. Rev. Zool. agric., Gironde **49** (1950) 1951 pp. 17–34, 11 figs.

1201.—Hall, D. W. Observations on the distribution, habits and life history of the bug *Piezostethus galactinus* (Fieb.) (Hem., Anthocoridae). Ent. mon. Mag., London **87** 1951 pp. 45–52, 4 figs.

1202.—Hall, D. W. & **Smith,** I. C. Studies in Pharaoh's ant, *Monomorium pharaonis* (L.). (6.) External characters, size variation and cephalic ratios. Ent. mon. Mag., London **87** 1951 pp. 217–221, 9 figs.

Hall, D. W. *see* Sanderson & Hall.

1203.—Hall, R. E. Comparative observations on the Chironomid fauna of a chalk stream and a system of acid streams. J. Soc. Brit. Ent., Bournemouth **3** 1951 pp. 253–262. [Dipt.]

1204.—Halliday, M. Defensive behavior in the mantis. Canad. Field Nat., Ottawa **64** 1950 pp. 133–135, 1 fig. [Orth.]

1205.—Hammer, O. Biological and ecological investigation on flies associated with pasturing cattle and their excrement. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **105** 1941 pp. 141–393, 80 figs. [Dipt.]

Hammond, C. O. *see* Colyer, C. N.

1206.—Hammond, H. E. *Cucullia* Schrank: *absinthii* Linn. (Lep.: Agrotidae). The pale wormwood shark. Ent. Gaz., London **2** 1951 pp. 191–196.

1207.—Hannah, A. Localization and function of heterochromatin in *Drosophila melanogaster*. Advances Genet., New York **4** 1951 pp. 87–125. [Dipt.]

Hannah, A. *see* Goldschmidt, Hannah & Piternick.

Hannes, G. *see* Danneel & Hannes.

1208.—Hansen, V. Biller. XIV. Clavicornia 2. Del og Bostrychoidea, XV. Rovbiller. 1. Del. Danm. Fn., Copenhagen 1951 **56** 253 pp. 116 figs.; **57** 274 pp. 131 figs.

Haramoto, F. H. *see* Bosch & Haramoto; Newell, Bosch & Haramoto.

1209.—Harant, H. & **Huttel,** W. & N. *Parapterobosca anthropophila* nov. gen., n. sp. Cératopogonide de la Côte d'Ivoire vulnérant pour l'homme. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 468–472, 5 figs. [Dipt.]

1210.—Hardy, D. E. A monographic study of the African Bibionidae (Diptera) Part III: Genus *Philia* Meigen. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 74–94, 10 figs.

1211.—Hardy, D. E. The ~~Kealns~~ Krauss collection of Australian fruitflies (Tephritidae–Diptera). Pacific Sci., Honolulu **5** 1951 pp. 115–189, 32 figs.

1212.—Hardy, D. E. Studies in Pacific Bibionidae (Diptera). Part II: Genus *Philia* Meigen. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 257–275, 2 pls.

Hardy, F. *see* De Meillon & Hardy.

1213.—Hardy, G. A. Notes on the life history of February highflyer *Hydriomena nubilofasciata* Pack. f. *vulnerata* Swett (Lepidoptera : Geometridae). Proc. ent. Soc. Br. Columbia, Victoria **47** (1950) 1951 pp. 25–26.

Hardy, G. A. *see* Carl, Guiguet & Hardy.

1214.—Hardy, G. H. Evolutionary trends in Diptera. Ent. mon. Mag., London **87** 1951 pp. 56–59.

1215.—Hardy, G. H. Theories of the world distribution of Diptera. Ent. mon. Mag., London **87** 1951 pp. 99–102.

1216.—Hardy, G. H. The phylogeny of Diptera. Ent. mon. Mag., London **87** 1951 pp. 140–141.

1217.—Hardy, G. H. The reticulation theory of wing venation in Diptera. J. Soc. Brit. Ent., Bournemouth **4** 1951 pp. 27–36, 4 figs.

1218.—Harman, I. Collecting butterflies and moths. London, Williams & Norgate Ltd. [1950] 128 pp. 6 pls. 1 frontisp. text figs.

1219.—Harmon, R. W. & **Pollard,** C. B. Bibliography of animal venoms. Gainesville, Florida Univ. Pr. 1948 340 pp.

1220.—Harmston, F. C. New species of Dolichopodidae from California and Utah (Diptera). Gt. Basin Nat., Provo **11** 1951 pp. 11–17.

1221.—Harmston, F. C. New species of Dolichopodidae in the University of Kansas Collection (Diptera). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 103–109.

1222.—Harnisch, O. Anaerobe Gasblasenbildung bei einigen roten Chironomidenlarven. Biol. Zbl., Leipzig **70** 1951 pp. 531–534. [Dipt.]

1223.—Harnly, M. H. Size of parts present vs. number of parts present in the development of *Drosophila melanogaster*. J. exp. Zool., Philadelphia, Pa. **118** 1951 pp. 21–36. [Dipt.]

1224.—Harnly, M.H. An optimum-temperature hypothesis for the heat reaction curves of *Drosophila melanogaster*. J. exp. Zool., Philadelphia, Pa. **118** 1951 pp. 37–69, 3 figs. [Dipt.]

Harpaz, A. *see* Bodenheimer & Harpaz.

Harper, J. O. *see* Haddow, van Someren, Lumsden, Harper & Gillett.

1225.—Harrington, N. J. & **Koza,** R. W. Effect of x-radiation on the desoxyribonucleic acid and on the size of grasshopper embryonic nuclei. Biol. Bull., Lancaster, Pa. **101** 1951 pp. 138–150, 4 figs. [Orth.]

1226.—Harris, W. V. Further records of East African termites. Proc. R. ent. Soc. London (B) **20** 1951 pp. 25–28, 1 fig. [Isopt.]

1227.—Harrison, A. C. Cape mayflies. Parts IX & X. Piscator, Cape Town **5** 1951 pp. 48–50, 1 fig., 75–78, 1 fig. [Ephem.]

1228.—Harrison, A. C. Cape dragonflies. Piscator, Cape Town **5** 1951 pp. 114–128, 5 figs. [Odon.]

Harrison, G. H. *see* Heslop-Harrison.

Harrison, R. A. *see* Smith & Harrison.

1229.—Hartung, E. W. The inheritance of a tumour in *Drosophila melanogaster*. J. Hered., Washington **41** 1950 pp. 269–272. [Dipt.]

1230.—Hartung, E. W. & **Tillinghast,** M. G. The nature of the pigmented sheath of *Drosophila* tumors. Science, Lancaster, Pa. **109** 1949 pp. 565–566. [Dipt.]

Harvey, E. N. *see* McElroy & Harvey.

1231.—Harvey, G. T. & **Brown,** A. W. A. The effect of insecticides on the rate of oxygen consumption in *Blattella*. Canad. J. Zool., Ottawa **29** 1951 pp. 42–53, 8 figs. [Orth.]

1232.—Harwell, J. E. Notes on the Odonata of north eastern Texas. Texas J. Sci., Houston **3** 1951 pp. 204–207.

1233.—Hase, A. Ueber die Maskierung, besonders der Eier, bei Bett- und Fledermauswanzen (Fam. Cimicidae). Z. Parasitenk., Berlin **12** 1941 pp. 284–301, 12 figs. [Hem.]

1234.—Hase, A. Beitrag zur Kenntnis der Holzameise (*Lasius fuliginosus*). Zool. Anz., Leipzig **146** 1951 pp. 326–329, 4 figs. [Hym.]

1235.—Haskins, C. P. Note on a gynandromorph in *Amblyopone australis* Erichson (Hymenoptera: Formicidae). J. New York ent. Soc. **59** 1951 pp. 221–224, 1 pl.

1236.—Haskins, C. P. & E. F. Note on the method of colony foundation of the Ponerine ant *Amblyopone australis* Erichson. Amer. Midl. Nat., Notre Dame **45** 1951 pp. 432–445, 1 fig. [Hym.]

1237.—Haskins, C. P. & E. F. Notes on the biology and social behaviour of the archaic Ponerine ants of the genera *Myrmecia* and *Promyrmecia*. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 461–491, 5 figs.

1238.—Hassanein, M. H. Studies on the effect of infection with *Nosema apis* on the physiology of the queen honey-bee. Quart. J. micr. Sci., London **92** 1951 pp. 225–231, 2 figs. [Hym.]

1239.—Hassenstein, B. & **Reichardt,** W. Funktionsanalyse der Bewegungsperzeption eines Käfers. Naturwissenschaften, Berlin **38** 1951 p. 507. [Col.]

1240.—Hassett, C. C. & **Jenkins,** D. W. The uptake and effect of radiophosphorus in mosquitoes. Physiol. Zool., Chicago **24** 1951 pp. 257–266, 4 figs. [Dipt.]

Hassett, C. C. *see* Jenkins & Hassett.

1241.—Hatch, M. H. Studies on the Coleoptera of the Pacific northwest IV: Carabidae, Dytiscidae, Gyrinidae. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 113–122.

1242.—Hatch, M. H. Coleopterists and Coleoptera collections in the Pacific northwest. Proc. ent. Soc. Br. Columbia, Victoria **47** 1951 pp. 37–40.

Hathaway, C. R. *see* Costa Lima, Campos Seabra & Hathaway.

1243.—Haubold, V. L. Distribution of the Carabidae (Coleoptera) of Boulder County, Colorado. Amer. Midl. Nat., Notre Dame **45** 1951 pp. 683–710, 6 figs.

1244.—Haupt, H. Die Käfer (Coleoptera) aus der eozänen Braunkohle des Geiseltales. Geologica, Berlin no. 6 1950 vii & 168 pp. 113 figs. [Fossil.]

1245.—Hausman, S. A. The scent-producing organ of the male monarch butterfly. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 389–391, 1 fig. [Lep.]

1246.—Havelka, J. *Dermestes haemorrhoidalis* Küst., collected in Prague (Coleoptera, Dermest.). [In Czech with English descriptions.] Ent. Listy, Brno **14** 1951 pp. 135–143, 4 figs.

1247.—Havelka, J. *Dermestes maculatus pakistanicus* ssp. n. introduced from Pakistan to ČSR. [In Czech and English.] Ent. Listy, Brno **14** 1951 pp. 143–144, 2 figs.

1248.—Havelka, J. & **Winkler,** J. The destructive flour beetle *Tribolium destructor* Uyttenb. Description of the pupa (Col., Tenebr.). [In Czech with English summary.] Ent. Listy, Brno **13** 1951 pp. 121–125, 3 figs. [Col.]

Havelka, J. *see* Dvořák & Havelka; Winkler & Havelka.

1249.—Hayashi, M. Studies on Cerambycidae from Japan and its adjacent regions (I). Ent. Rev. Japan, Osaka **5** 1951 pp. 75–82. [Col.]

1250.—Hayashi, T. Morphological studies on abnormally shaped eggs in *Bombyx mori*. II. Small-egg strain. 2. Scanty egg type. [In Japanese with English summary.] Bull. sci. Kyusyu Univ., Fukuoka **9** 1940 pp. 190–203, 4 figs. [Lep.]

Haydak, M. H. *see* Levin & Haydak.

1251.—Hayward, K. J. Insecta. Lepidoptera (Rhopalocera) familia Hesperiidarum subfamilia Hesperiinarum. Gen. Sp. Anim. Argent., Tucumán **2** 1950 388 pp. 26 pls. [12 col.].

1252.—Hayward, K. J. Catálogo sinonímico de los ropalóceros argentinos excluyendo Hesperiidae. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 85–271.

1253.—Hayward, K. J. Las especies y formas argentinas del género *Adelpha* (Lep. Nymphalidae). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 375–393, 19 figs.

1254.—Hayward, K. J. Estudios sobre Hespéridos neotropicales (Lep. Hesp.) II. Descripciones de nuevas especies. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 463–470, 5 figs.

1255.—Hayward, K. J. Hesperioidea argentina XXI. Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 53–56, 1 fig.

1256.—Hedwig-Berel, K. Mitteleuropäische Schlupfwespen und ihre Wirte. Nachr. naturw. Mus. Aschaffenburg Heft **33** 1951 pp. 83–86. [Hym.]

1257.—Heikertinger, F. Muss der allbekannte Name *Chrysomela* wirklich in *Chrysolina* umgeändert werden ? Ent. Arb., Münich **2** 1951 pp. 172–182. [Col.]

1258.—Heikertinger, F. Bestimmungstabellen europäischer Käfer (12.Stück). LXXXII. Fam. Chrysomelidae. 5. Subfam. Halticinae. Bestimmungstabellen der paläarktischen Arten der Gattungen *Podagrica* Foudr. *Mantura* Steph. und *Chaetocnema* Steph. Koleopt. Rdsch., Vienna **32** 1951 pp. 1–84, 41 figs.

1259.—Heinrich, G. Ichneumoniden der Steiermark (Hym.). Bonn. zool. Beitr. **2** 1951 pp. 235–290, 6 figs.

1260.—Heinrich, G. *Xorides holsaticus* spec. nov. W.M. Nachr. naturw. Mus. Aschaffenburg Heft **30** 1951 pp. 47–49. [Hym.]

1261.—Heinrich, G. Beiträge zur Kenntnis der Ichneumoninae (nach Beobachtungen in der Hahnheide, Holstein). Nachr. naturw. Mus. Aschaffenburg Heft **31** 1951 pp. 27–32. [Hym.]

1262.—Heitz, E. Kleine Beiträge zur Zellenlehre IV. Ueber Grosskerne bei Collembolen. Zool. Anz., Leipzig **146** 1951 pp. 197–201, 3 figs.

1263.—Heizer, P. The chromosome cytology of an Oahu species of the Pacific genus *Oechalia* (Pentatomidae, Hempitera–Heteroptera), *Oechalia grisea* (Burmeister). J. Morph., Philadelphia **88** 1951 pp. 185–198, 16 figs.

1264.—Helfer, J. R. A new subspecies of *Metataenia* (Coleoptera : Buprestidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 94–96.

1265.—Hellén, W. Neue Ichneumoniden aus Ostfennoskandien I. Notul. ent., Helsinki **31** 1951 pp. 25–31. [Hym.]

1266.—Hellén, W. Zur Ichneumonidenfauna (Hym.) Finnlands VII. Notul. ent., Helsinki **31** 1951 pp. 92–106. [Hym.]

1267.—Hellén, W. Neue paläarktische Nematinen (Hym., Tenthr.) II. Notul. ent., Helsinki **31** 1951 pp. 106–109.

1268.—Hellwig, H. & **Ludwig,** W. Versuche zur Frage der Arterkennung bei Insekten. Z. Tierpsychol., Berlin **8** 1951 pp. 456–462.

Hem Singh Pruthi *see* Pruthi.

1269.—Hemming, F. First report on matters left unsettled in " Opinion " 124, in relation to the status of the terms used by Linnaeus in 1758 to denote subdivisions of genera established in the 10th edition of the " Systema Naturae ". The subdivisions of the genus *Gryllus* Linnaeus, 1758 (Class Insecta, Order Orthoptera). Bull. zool. Nomen., London **2** 1951 pp. 112–118.

1270.—Hemming, F. Report on the procedure proposed by the International Commission on Zoological Nomenclature to put an end to the confusion in the nomenclature of the order Diptera (Class Insecta) resulting from the controversy regarding the generic names published by Meigen in 1800 in his " Nouvelle classification des mouches à deux ailes " ; first instalment of applications. Bull. zool. Nomen., London **2** 1951 pp. 131–133.

1271.—Hemming, F. Suggested adoption of a " declaration " clarifying the meaning of rule (f) in Article 30 (rule relating to the type species of a nominal genus established to replace an earlier nominal genus). Bull. zool. Nomen., London **6** 1951 pp. 45–48.

1272.—Hemming, F. Suggested adoption of a " declaration " relative to the nominal species to be regarded as eligible for selection as the type species of a genus established without

cited nominal species, in cases where a subsequent author without citing such a species, gives a bibliographical reference to a work in which such species are cited. Bull. zool. Nomen., London **6** 1951 pp. 85–88.

1273.—Hemming, F. Suggested adoption by the International Commission on Zoological Nomenclature of a "declaration" clarifying the question of the availability of a trivial name having as its only "indication" a qualified reference to a previously published trivial name. Bull. zool. Nomen., London **6** 1951 pp. 103–105.

1274.—Hemming, F. The problem of stability in specific nomenclature, with special reference to cases where type material is no longer in existence. Trans. Soc. Brit. Ent., Bournemouth **2** 1951 pp. 1–15.

1275.—Henke, K. & **Rönsch,** G. Ueber Bildungsgleichheiten in der Entwicklung epidermaler Organe und die Entstehung des Nervensystems im Flügel der Insekten. Naturwissenschaften, Berlin **38** 1951 pp. 335–336, 2 figs.

1276.—Hennig, W. Neue Acalyptraten aus Europa und Südafrika (Diptera: Piophilidae, Helomyzidae, Lauxaniidae). Beitr. Ent., Berlin **1** 1951 pp. 70–76, 8 figs.

1277.—Henrard, C. Répartition des glossines au Congo belge et au Ruanda-Urundi. Bull. Inst. colon. Belge, Brussels **22** 1951 pp. 967–993. [Dipt.]

1278.—Henrard, C. Genre *Glossina* (Diptera: Brachycera) Fam. Muscidae. Explor. Parc nat. de l'Upemba, Miss. de Witte (1946–1949), Brussels no. 4 1951 pp. 17–19.

Henrot, H. *see* Balazuc, Dresco, Henrot & Nègre.

1279.—Henson, H. The wings of *Forficula auricularia* Linn. (Dermaptera). Proc. R. ent. Soc. London (A) **26** 1951 pp. 135–142, 2 figs.

1280.—Heqvist, K. J. Två till Sverige med bambu införda *Dinoderus*-arter (Bostrychidae, Col.). Ent. Tidskr., Stockholm **72** 1951 pp. 70–73, 4 figs.

1281.—Herbulot, C. Diagnoses de nouveaux genres de Geometridae Larentiinae. Rev. franç. Lép., Paris **13** 1951 pp. 25–26. [Lep.]

1282.—Herbulot, C. Un nouvel *Epirrhoe* d'Amérique du Nord (Geometridae, Larentiinae). Rev. franç. Lép., Paris **13** 1951 pp. 26–27. [Lep.]

1283.—Herbulot, C. Diagnoses de quatre nouveaux genres de Larentiinae paléarctiques (Geometridae). Rev. franç. Lép., Paris **13** 1951 pp. 62–63. [Lep.]

1284.—Herbulot, C. & **Viette,** P. Lépidoptères récoltés par MM. A. Reymond et F. Pierre dans la région de Beni-Abbès (Sahara algérien). Rev. franç. Lép., Paris **13** 1951 pp. 89–96.

Herbulot, C. *see* Bernardi, Herbulot & Picard.

1285.—Herfs, A. Der Schwarmflug von *Reticulitermes lucifugus* Rossi. Z. angew. Ent., Berlin **33** 1951 pp. 69–77. [Isopt.]

1286.—Hering, E. M. Biology of the leaf miners. 's-Gravenhage, W. Junk 1951 iv & 420 pp. 2 pls. (1 col.) 180 figs.

1287.—Hering, E. M. Ein neuer Sellerie-Feind, *Melanagromyza apii*, sp. n. (Dipt. Agromyz.). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 736–745, 5 figs.

1288.—Hering, E. M. Trypetidae (Dipt.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 121–176, 1 pl. 4 figs. [all but 6 copies destroyed in the War, re-issued in 1951 as Bd. 2 pp. 117–171].

1289.—Hering, E. M. Neue paläarktische und nearktische Agromyziden (Dipt.). Notul. ent., Helsinki **31** 1951 pp. 31–45, 3 figs.

1290.—Hering, E. M. Schwedische Miniaturen. Opusc. ent., Lund **16** 1951 pp. 81–88, 2 figs. [Dipt., Lep.]

1291.—Hering, E. M. Neue Fruchtfliegen der Alten Welt. Siruna Siva (Bl. FruchtflKunde), Berlin **7** 1951 pp. 1–16, 13 figs. [Dipt.]

1292.—Hering, E. M. Ein neuer Getreideschädling *Agromyza veris* sp. nov. (Dipt.). Z. angew. Ent., Berlin **32** 1951 pp. 604–608, 3 figs.

1293.—Hering, M. Weiteres zur Raupen-Biologie von *Xanthoecia flavago* Schiffm. (*Gortyna ochracea* Hbn.). Ent. Z., Frankfurt a. M. **60** 1950 pp. 17–18. [Lep.]

1294.—Herrera G., J. Dos géneros nuevos de ninfalidos para Chile. An. Acad. chil. Cienc. nat., Santiago no. 15 1950 pp. 5–15, 5 pls. [Lep.]

1295.—Herring, J. L. The aquatic and semiaquatic Hemiptera of northern Florida. Parts 2–4. Florida Ent., Gainesville **33** (1950) 1951 pp. 145–150; **34** 1951 pp. 17–29, 146–161.

Herring, J. L. *see* Hussey & Herring.

Herron, P. W. *see* Rockstein & Herron.

1296.—Herskowitz, I. H. A list of chemical substances studied for effects on *Drosophila*, with a bibliography. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 181–199. [Dipt.]

1297.—Herskowitz, I. H. The genetic basis of x-ray induced recessive lethal mutations. Genetics, New York **36** 1951 pp. 356–363. [Dipt.]

1298.—Herskowitz, I. H. & **Burdette,** W. J. Some genetic and environmental influences on the incidence of a melanotic tumor in *Drosophila*. J. exp. Zool., Philadelphia **117** 1951 pp. 499–521, 5 figs. [Dipt.]

1299.—Herter, K. Die Beziehungen zwischen der Oekologie und der Thermotaxis der Tiere. Biol. gen., Vienna **17** 1943 pp. 243–309, 3 figs.

Hertig, M. *see* Fairchild & Hertig.

1300.—Heslop-Harrison, G. Subfamily separation in the Homopterous Psyllidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1–35, 8 figs.

1301.—Heslop-Harrison, G. The Arytainini of the subfamily Psyllinae, Hemiptera-Homoptera family Psyllidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 417–454, 8 figs.

1302.—Heslop-Harrison, G. Notes on Scandinavian Psyllidae.—Part I. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 657–672, 1 pl.

1303.—Heslop-Harrison, G. Preliminary notes on the ancestry, family relations, evolution and speciation of the Homopterous Psyllidae.—I. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1057–1072.

1304.—Hesse, A. J. Some Bombyliidae in the Museu Dr. Alvaro de Castro, collected by Dra. Maria Corinta Ferreira in Moçambique. Mem. Mus. Alvaro de Castro, Lourenço Marques no. 1 1950 pp. 21–34. [Dipt.]

Hessel, S. A. *see* Rawson & Hessel; Rawson, Ziegler & Hessel.

1305.—Heyrovský, L. Příspěvek k Poznání tesaříka *Dorcadion fulvum* Scop. [In Czech with French summary.] Acta ent. Soc. nat. Pragae **26** 1950 no. 372, 3 pp.

1306.—Heyrovský, L. Catalogus coleopterorum Čechosloveniae. Supplementum. Cerambycidae. [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 43–53.

1307.—Heyrovský, L. Notulae Cerambycidologicae I (Col.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 154–157.

1308.—Heyrovský, L. Résultats de la Mission Zoologique Suisse au Cameroun. Cérambycides. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 p. 227. [Col.]

1309.—Hickin, N. E. Larvae of the British Trichoptera.—32. Proc. R. ent. Soc. London (A) **26** 1951 pp. 93–96, 11 figs.

Hiestand, W. A. *see* Steinler & Hiestand.

Hightower, B. G. *see* Menzies, Eads & Hightower.

1310.—Hincks, W. D. Notes on some species of *Nesogaster* (Dermaptera, Labiidae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 562–576, 19 figs.

1311.—Hincks, W. D. The Dermaptera of the Belgian Congo. Part I. Pygidicranidae. Ann. Mus. Congo belge, Brussels (Sér. 8°) Sci. zool. **8** 1951 50 pp. 36 figs.

Hincks, W. D. *see* Arrow, G. J.

1312.—Hinton, H. E. A new *Cylloepus* from Argentina (Coleoptera, Elmidae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 820–823, 2 figs.

1313.—Hinton, H. E. On a little-known protective device of some Chrysomelid pupae (Coleoptera). Proc. R. ent. Soc. London (A) **26** 1951 pp. 67–73, 2 figs.

1314.—Hinton, H. E. A new Chironomid from Africa, the larva of which can be dehydrated without injury. Proc. zool. Soc. London **121** 1951 pp. 371–380, 1 pl. 5 figs. [Dipt.]

1315.—Hinton, H. E. Myrmecophilous Lycaenidae and other Lepidoptera—a summary. Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 111–175, 9 figs.

1316.—Hinton, H. E. The structure and function of the endocrine glands of the Lepidoptera. Trans. S. London ent. nat. Hist. Soc. **1950-51** 1951 pp. 124–160, 19 figs.

1317.—Hinton, T., **Ellis,** J. & **Noyes,** D. T. An adenine requirement in a strain of *Drosophila*. Proc. nat. Acad. Sci. U.S.A., Washington, D.C. **37** 1951 pp. 293–299. [Dipt.]

1318.—Hinton, T., **Noyes,** D. T. & **Ellis,** J. Amino acids and growth factors in a chemically defined medium for *Drosophila*. Physiol. Zool., Chicago **24** 1951 pp. 335–353. [Dipt.]

Hirashima, Y. *see* Yasumatsu & Hirashima.

1319.—Hlinovský, J. A new species of heel fly for Czechoslovakia (Dipt. Oestr.). [In Czech with English summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 59–60, 1 fig.

Ho, Y. C. *see* Liu & Ho.

1320.—Hoberlandt, L. New species of *Microvelia* from Egypt, with a key to the Egyptian species of the genus (Hemiptera-Homoptera: Veliidae). Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 271–275, 9 figs.

1321.—Hoberlandt, L. Madagascan species of *Rhagovelia* Mayr. Comment. biol., Helsingfors **12** 1951 no. 5 pp. 1–12, 23 figs. [Hem.]

1322.—Hoberlandt, L. Semiaquatic Heteroptera collected in Lunda, North East Angola (Portuguese West Africa) by Dr. A. de Barros Machado in 1946–1949. Publ. cult. Mus. Dundo, Comp. Diam. Angola, Lisbon no. 10 1951 [preprint 1950] pp. 9–49, 164 figs.

1323.—Hoberlandt, L. & **Táborský,** K. Results of the Zoological Scientific Expedition of the National Museum in Praha to Turkey. Acta ent. Mus. nat. Pragae **26** 1948 no. 346, 10 pp. 13 figs.

Hoberlandt, L. *see* Drake & Hoberlandt.

1324.—Hoch, K. Beitrag zur Kenntnis einiger Wasserkäfer (Col. Dytiscidae et Hydrophilidae). Ent. Bl., Krefeld **47** 1951 pp. 39–43.

1325.—Hodgson, E. S. Reaction thresholds of an aquatic beetle, *Laccophilus maculosus* Germ., to salts and alcohols. Physiol. Zool., Chicago **24** 1951 pp. 131–140, 4 figs. [Col.]

Hoff, C. C. *see* Traub & Hoff; Williams & Hoff.

1326.—Hoffman, R. A., **Lindquist,** A. W. & **Butts,** J. S. Studies on treatment of flies with radio-active phosphorus. J. econ. Ent., Menasha **44** 1951 pp. 471–473.

Hoffman, R. A. *see* Lindquist, Yates & Hoffman.

1327.—Hoffmann, A. Unnouveau Curculionide anophtalme du Congo belge et observations sur un genre voisin du Kenya. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 243–246. 1 fig. [Col.]

1328.—Hofmänner, B. Die Geradflügler (Dermaptera und Orthoptera) des schweizerischen Nationalparkes und der angrenzenden Gebietes. Ergebn. wiss. Unters. schweiz. Nat-Parks, Leistal (N.F.) **3** 1951 no. 25 pp. 241–311, 10 maps.

1329.—Hoier, R. A travers plaines et volcano au Parc national Albert. Brussels 1950 173 pp. 24 pls. [Insects pp. 137–147.]

1330.—Holdenried, R., **Evans,** F. C. & **Longanecker,** D. S. Host-parasite-disease relationships in a

mammalian community in the central coast range of California. Ecol. Monogr., Durham, N.C. **21** 1951 pp. 1–18.

Holemans, K. *see* Wanson & Holemans.

1331.—Holgersen, H. The Norwegian species of *Euscelis* and related genera (Homoptera Cicadina). Nytt Mag. Naturv., Oslo **87** 1949 pp. 77–94, 7 figs.

1332.—Holik, O. Zwitterbildungen bei *Aglia tau* L. Ent. Z., Frankfurt a. M. **60** 1950 pp. 140–141. [Lep.]

1333.—Holik, O. Sind *Papilio*-Raupen geschützt ? Ent. Z., Frankfurt a. M. **61** 1951 pp. 87–88. [Lep.]

1334.—Holland, G. P. A note on the occurrence of *Catallagia dacenkoi* Ioff in North America, with the description of a Nearctic subspecies (Siphonaptera : Neopsyllidae). Canad. Ent., Ottawa **83** 1951 pp. 156–160, 7 figs.

1335.—Holland, G. P. Notes on some bird fleas, with the description of a new species of *Ceratophyllus*, and a key to the bird fleas known from Canada (Siphonaptera : Ceratophyllidae). Canad. Ent., Ottawa **83** 1951 pp. 281–289, 10 figs.

Hollande, A. *see* Grassé & Hollande.

1336.—Hölldobler, K. Ueber eine Milbenschädigung der Rossameise (*Camponotus herculeanus*), die durch eine Fehlreaktion des Wirtes wirksam wird. Z. angew. Ent., Berlin **33** 1951 pp. 104–107. [Hym.]

Hollings, M. *see* Broadbent & Hollings.

1337.—Hood, J. D. A new *Hoplothrips* from Cuba (Thysanoptera, Phlaeothripidae). Proc. biol. Soc. Washington **63** 1950 pp. 139–146, 1 pl.

1338.—Hoogstraal, H. & **Knight,** K. L. Observations on *Eretmapodites silvestris conchobius* Edwards (Culicidae) in the Anglo-Egyptian Sudan. Amer. J. trop. Med., Baltimore **31** 1951 pp. 659–664, 3 figs. [Dipt.]

Hopkins, B. *see* Way, Smith & Hopkins.

1339.—Hopkins, G. H. E. Stray notes on Mallophaga.—XI. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 371–377.

1340.—Hopkins, G. H. E. Notes on fleas. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 529–544, 5 figs. [Siphonapt.]

1341.—Hopkins, G. H. E. Proposed amendment of the " Règles " to provide that spelled-out letters or numerals are not to be accepted as available trivial names, when those letters or numerals were originally employed as ordinals for the enumeration of the species, subspecies or infra-subspecific forms concerned. Bull. zool. Nomen., London **6** 1951 pp. 52–53.

1342.—Hopkins, G. H. E. The scientific name for the fleas. Entomologist, London **84** 1951 pp. 208–214. [Siphonapt.]

Hopkins, G. H. E. *see* Clay & Hopkins.

1343.—Hörhammer, C. Notiz zum Vorkommen der *Rebelia bavarica* Wehrli in Bayern. Ent. Z., Frankfurt a. M. **60** 1950 pp. 38–39. [Lep.]

1344.—Hörhammer, C. *Cidaria varonaria* Vorbr. und Müller-Rutz. Ent. Z., Frankfurt a. M. **61** 1951 pp. 121–123. [Lep.]

1345.—Horion, A. Verzeichnis der Käfer Mitteleuropas (Deutschland, Oesterreich, Tschechoslovakei) mit kurzen faunistischen Angaben. I, II. Stuttgart, A. Kernen Verlag 1951 VII+536 pp. [Col.]

1346.—Hornuff, jr., L. E. A further study of *Aphylla williamsoni* Gloyd (Odonata, Aeschnidae). Proc. La Acad. Sci., Baton Rouge **14** 1951 pp. 39–44.

Hosino, Y. *see* Komai & Hosino.

1347.—Hottes, F. C. A method for taking Aphids in flight. Pan-Pacif. Ent., San Francisco **27** 1951 p. 190. [Hem.]

1348.—Hottes, F. C. A new species belonging to the genus *Myzocallis* (Aphididae). Proc. biol. Soc. Washington **62** 1949 pp. 105–107. [Hem.]

1349.—Hottes, F. C. Some obscure Aphid species. Proc. biol. Soc. Washington **62** 1949 pp. 159–160. [Hem.]

1350.—Hottes, F. C. Description of western Colorado Aphididae. Proc. biol. Soc. Washington **63** 1950 pp. 15–28. [Hem.]

1351.—Hottes, F. C. Descriptions of some Aphididae from *Carex*. Proc. biol. Soc. Washington **63** 1950 pp. 35–39. [Hem.]

1352.—Hottes, F. C. New species of Aphididae. Proc. biol. Soc. Washington **63** 1950 pp. 97–100. [Hem.]

1353.—Hottes, F. C. A new juniper Aphid from western Colorado. Proc. biol. Soc. Washington **64** 1951 pp. 145–146. [Hem.]

1354.—Hottes, F. C. & **Wehrle,** L. P. Two new species of Lachnini (Aphididae) from Arizona. Proc. biol. Soc. Washington **64** 1951 pp. 43–46. [Hem.]

1355.—Hottes, F. C. & **Wehrli,** W. P. Arizona Aphididae. Proc. biol. Soc. Washington **64** 1951 pp. 47–54. [Hem.]

Hottes, F. C. *see* Drake & Hottes.

1356.—Hough, J. S. The effect of wind on the distribution of Cynipid galls caused by *Neuroterus lenticularis* Olivier. J. Anim. Ecol., London **20** 1951 pp. 165–168, 4 figs. [Hym.]

1357.—Hovanitz, W. Increasing variability in populations following natural hybridization. Genetics, Palaeont. & Evol., Princeton, New Jersey 1949 pp. 339–355, 1 pl. 5 figs. [Lep.]

1358.—Hovanitz, W. The biology of *Colias* butterflies, III. Variation of adult flight in the Arctic and Subarctic. Wasmann. J. Biol., San Francisco **9** 1951 pp. 1–9, 1 fig. [Lep.]

Hovanitz, W. *see* Le Gare & Hovanitz.

1359.—Howarth, T. G. Prison camp entomology in the Far East, 1941–45. Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 94–110, 3 pls.

1360.—Howe, R. W. Studies on beetles of the family Ptinidae. V. Bull. ent. Res., London **42** 1951 pp. 445–453, 1 fig. [Col.]

1361.—Howe, R. W. & **Burges,** H. D. Studies on beetles of the family Ptinidae. VI. Bull. ent. Res., London **42** 1951 pp. 499–511, 1 pl. 4 figs. [Col.]

1362.—Hrbáček, J. Revue des espèces du genre *Hydraena* Kug. sur le territoire de la république Tchécoslovaque (Col. Hydroph.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 201–226, 3 figs.

1363.—Hrubý, K. Some new and rare Lepidoptera in North-Eastern Bohemia. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 80–85.

1364.—Hrubý, K. Colour variation in *Dendrolimus pini* L. (Lep. Lasiocamp.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 127–131.

1365.—Huard, G. & **Corbe,** R. P. Recherches photométriques sur *Parnassius apollo* L. (Lépidoptères). Bull. Soc. zool. France, Paris **76** 1951 pp. 18–21.

1366.—Huckett, H. C. The genus *Eremomyia* Stein in North America, with descriptions of new species (Muscidae : Diptera). J. New York ent. Soc. **59** 1951 pp. 75–90, 1 pl.

1367.—Huckett, H. C. The *setiventris*-complex in the genus *Hylemya* Rob. Desv., with descriptions of new species and subspecies from North America (Diptera, Muscidae). Proc. ent. Soc. Washington **53** 1951 pp. 251–260, 1 pl.

1368.—Hudson, G. B. Studies in the comparative anatomy and systematic importance of the hexapod tentorium—IV. Ephemeroptera. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 3–23, 12 figs.

1369.—Hudson, G. V. Fragments of New Zealand entomology. Wellington, N.Z., Ferguson & Osborn Ltd. 1950 [1951] 188 pp. 19 pls. (2 col.) 4 figs.

1370.—Hughes, G. M. The coordination of insect movements. Abstr. Diss. Univ. Cambridge **1949-50** 1951 pp. 48–49.

1371.—Hughes-Schrader, S. The desoxyribonucleic acid content of the nucleus as a cytotaxonomic character in Mantids (Orthoptera : Mantoidea). Biol. Bull., Lancaster, Pa. **100** 1951 pp. 178–187, 8 figs.

Hukusima, S. *see* Uchida & Hukusima.

1372.—Hull, F. M. New species of *Mesogramma* (Diptera, Syrphidae). Amer. Mus. Novit., New York no. 1480 1951 22 pp.

1373.—Hull, F. M. Some new species of Syrphid flies. J. New York ent. Soc. **59** 1951 pp. 65–70. [Dipt.]

1374.—Hull, F. M. Some New World Xylotinae (Diptera : Syrphidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 183–186.

Hull, W. B. *see* Knight & Hull.

1375.—Humphries, C. F. Metamorphosis of the Chironomidae II. Hydrobiologia, The Hague **3** 1951 pp. 209–216, 11 figs. [Dipt.]

1376.—Hungerford, H. B. A new *Mesovelia* from Mexico and Guatemala. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 32–34, 4 figs. [Hem.]

1377.—Hungerford, H. B. A new *Metrobates* from Brazil, South America (Hemiptera-Gerridae). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 72–73, 1 fig.

1378.—Hungerford, H. B. A new *Hydrometra* from Mauritius. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 109–111, 1 pl. [Hem.]

1379.—Hungerford, H. B. An interesting new Gerrid from Madagascar (Hemiptera). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 131–133, 4 figs.

1380.—Hungerford, H. B. Concerning some *Hydrometra* from Africa (Hemiptera). Psyche, Cambridge, Mass. **58** 1951 pp. 65–72, 1 pl.

1381.—Hunt, B. P. Reproduction of the burrowing mayfly *Hexagenia limbata* (Serville), in Michigan. Florida Ent., Gainesville **34** 1951 pp. 59–69, 1 fig. [Ephem.]

1382.—Hurpin, E. Les pontes multiples chez le hanneton commun (*Melolontha melolontha* L.). 1° Evolution d'une population naturelle dans un site déterminé. C.R. Acad. Agric. France, Paris **37** 1951 pp. 195–197. [Col.]

1383.—Hussey, R. F. *Leptocorixa filiformis* in the United States (Hemiptera : Coreidae). Florida Ent., Gainesville **33** (1950) 1951 pp. 150–154, 4 figs.

1384.—Hussey, R. F. & **Herring,** J. L. Rediscovery of a Belostomatid named by Thomas Say (Hemiptera). Florida Ent., Gainesville **33** (1950) 1951 pp. 154–156.

Hussey, R. F. *see* Drake & Hussey.

1385.—Hustache, A. Nouveaux Barinae sud américains 2ème & 4ème parties. Bol. Mus. nac. Rio de Janeiro (N.S.) Zool. 1951 no. 96 78 pp. ; no. 102, 78 pp.

1386.—Hüther, M. Neue und beachtenswerte Koleopteren- und Heteropterenfunde aus der Umgebung von München. Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 258–282.

Huttel, N. *see* Harant & Huttel.

1387.—Huttel, W. & N. Sur la présence en France d'un Culicoide nord-africain : *Culicoides citrinellus* Kieff. 1923. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 475–476. [Dipt.]

1388.—Huttel, W. & N. Les Ceratopogonides de la Collection H. Bertrand. Entomologiste, Paris **7** 1951 pp. 98–105, 3 figs. [Dipt.]

Hwang, K. H. *see* Luh & Hwang.

1389.—Iablokoff, A. K. Facteurs biotiques et plasticité éthologique des insectes. Ann. Soc. ent. France, Paris **118** 1951 pp. 95–112.

1390.—Iablokoff, A. K. Relictes de la faune de l'époque xerothermique quaternaire dans le Massif de Fontainebleau. Trav. Ass. Nat. Loing, Moret-sur-Loing no. 11 1948 pp. 156–160.

1391.—Iersel, J. van. Over de oriëntatie van *Bembex rostrata* L. Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. LXIV–LXIX. [Hym.]

1392.—Ihssen, —. Ueber *Colon dentipes* Sahlb. und verwandte Arten.

Colon dubiosum nov. spec. (Silphidae). Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 108–112, 2 figs. [Col.]

1393.—Illies, H. Das Insekten führende Alttertiär von Havighout. Z. Geschiebeforsch., Leipzig **17** 1941 pp. 16–24, 8 figs. [Fossil.]

1394.—Illiès, J. Nachtrag zu Gehrs Verzeichnis der Netzflügler der näheren und weiteren Umgebung Hannovers. Beitr. Naturk. Niedersachs., Hanover **3** 1950 pp. 111–116 ; **4** 1951 pp. 82–90.

1395.—Imaidzumi, T. Acidaliinae (Geometridae) from Tokyo with description of a new species. Tenthredo, Kyoto **3** 1941 pp. 295–297, 1 fig. [Lep.]

1396.—Imaidzumi, T. Sterrhinae (Geometridae) from south-western district of the Kwanto Plane. Tenthredo, Kyoto **3** 1942 pp. 359–363. [Lep.]

1397.—Inagaki, K. Effect of temperature upon the mortalities and other physiological characters of *Epilachna sparsa orientalis* Dieke and *Epilachna niponica* Lewis. [In Japanese with English summary.] Oyo-Kontyû, Tokyo **5** 1950 pp. 169–176. [Col.]

1398.—Inoue, H. *Anaitis perelegans* and its subspecies in Japan (Lepidoptera : Geometridae). Mushi, Fukuoka **22** 1951 pp. 25–28, 3 figs.

1399.—Invrea, F. Mutillidi nuovi o notevoli del bacino mediterraneo (Hymenoptera-Mutillidae). II Parte. Boll. Soc. ent. ital., Genoa **81** 1951 pp. 34–43, 2 figs.

Irwin, R. L. *see* Arnason, Irwin & Spinks.

Irzykiewicz, H. *see* Powning, Day & Irzykiewicz.

Ishihara, T. *see* Esaki & Ishihara.

1400.—Ishii, T. New Chalcid parasites of Cecidomyid flies injurious to the soy bean. Oyo-Kontyû, Tokyo **6** 1950 pp. 141–143, 4 figs. [Hym.]

1401.—Ishii, T. & **Nagasawa,** S. Description of a new Eucharid from Palau Islands. Tenthredo, Kyoto **3** 1941 pp. 292–294, 1 pl. 7 figs. [Hym.]

Ishimura, K. *see* Sasa & Ishimura.

1402.—Islas S., F. Breve estudio morfológico del imago de la mosca prieta de los citricos (*Aleurocanthus woglumi* Ashby) Insecta–Homoptera–Aleyrodiidae. An. Inst. Biol., Mexico **22** 1951 pp. 313–322, 2 pls.

1403.—Ito, S. Neue Trypetiden aus Japan (Diptera) (II). Sci. Rep. Fac. Agric. Naniwa Univ., Osaka **1** 1950 pp. 1–6, 6 figs.

Ito, S. *see* Sibatani & Ito.

1404.—Ives, J. D. Faunal abundance cycles in a small crepuscular cave. J. Elisha Mitchell sci. Soc., Chapel Hill **67** 1951 pp. 259–270.

1405.—Iwata, K. Comparative studies on the habits of solitary wasps. Tenthredo, Kyoto **4** 1942 pp. 1–146, 5 pls. [Hym.]

Iwata, K. *see* Morimoto, Iwata & Yasumatsu.

1406.—Jäckh, E. Die Insekten des Naturschutzparkes der Lüneburger Heide. III. Die Kleinschmetterlinge (Microlepidoptera). Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 786–806, 4 figs.

1407.—Jäckh, E. Bemerkenswerte Lepidopterenfunde auf Wangeroog in den Jahren 1947, 1949 und 1950. Z. Lepid., Krefeld **1** 1951 pp. 119–122.

1408.—Jäckh, E. Praktische Genitalpräparate. Z. Lepid., Krefeld **1** 1951 pp. 175–180, 1 fig.

Jackson, C. H. N. *see* Burtt & Jackson.

1409.—Jackson, D. J. Food-plant of *Jacksonia papillata* Theobald (Hemiptera : Aphididae). (With a postscript by H. L. G. Stroyan.) Proc. R. ent. Soc. London (A) **26** 1951 pp. 41–42

1410.—Jackson, T. H. E. Notes on some new or rare Rhopalocera from eastern Africa. Parts I, II. Proc. R. ent. Soc. London (B) **20** 1951 pp. 91–96, 97–165, 1 col. pl. [Lep.]

1411.—Jacobi, A. Die Singzikaden. Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 93–96, 1 fig. [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 89–92, 1 fig.] [Hem.]

1412.—Jacobs, S. N. A. The British Oecophoridae (Part II). Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 187–203, 1 col. pl. [Lep.]

1413.—Jagemann, E. Denticollidae, une nouvelle famille des Sternoxes. Ent. Listy, Brno **13** 1951 pp. 163–164. [Col.]

1414.—Jagemann, E. Tableau analitique des larves d'Elatérides de nos campagnes. [In Czech with French summary.] Ent. Listy, Brno **14** 1951 pp. 62–75, 7 figs. [Col.]

1415.—James, M. T. The Stratiomyidae of Alaska (Diptera). Proc. ent. Soc. Washington **53** 1951 pp. 342–343.

1416.—James, M. T. A new species of *Solva* (Diptera : Erinnidae) from Guadalcanal Island. Wasmann J. Biol., San Francisco **9** 1951 pp. 149–150.

1417.—Janetschek, H. Beitrag zur Kenntnis der Gattung *Machilis* (Thysanura). Z. wien. ent. Ges., Vienna **35** 1950 pp. 154–159, 10 figs. ; **36** 1951 pp. 16–21, 4 figs.

1418.—Janse, A. J. T. The moths of South Africa. Vol. V, part 3. Gelechiadae. Pretoria, Transvaal Mus. 1951 pp. 173–300, pls. 89 and 36. [Lep.]

1419.—Janssens, A. Onotini (Coleoptera, Lamellicornia). Fam. Scarabaeidae. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels no. 3 1951 41 pp. 57 figs.

1420.—Janssens, A. Revision des Aegialiinae et Aphodiinae (Coleoptera Scarabaeidae) de la Belgique. Mém. Inst. Sci. nat. Belg., Brussels no. 115 1951 136 pp. 62 figs.

1421.—Janssens, E. Constitution d'un fichier de types en couples stéréoscopiques. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 242–244, 2 figs.

1422.—Janssens, E. Contribution à l'étude des Diptères de l'Urundi. 1.—Un nouveau genre de Diptère Asilide : *Oxynoton* n.g. Bull. Inst. Sci. nat. Belg., Brussels **27** 1951 no. 54, 4 pp., 1 fig.

1423.—Janssens, E. Paussidae (Coleoptera Adephaga). Explor. Parc nat. de l'Upemba, Miss. de Witte (1946–49), Brussels no. 4 1951 pp. 3–11, 3 figs.

1424.—Jansson, A. The gall-flies (Cynipidae) of Iceland. A revision (contd.). Ent. Medd., Copenhagen **25** 1951 pp. 429–434, 6 figs. [Hym.]

1425.—Jarrige, J. *Philonthus* circaméditerranéens nouveaux ou mal connus (Col. Staphylinidae). Bull. Soc. ent. France, Paris **56** 1951 pp. 6–10, 7 figs.

1426.—Jarvis, F. V. L. The meteorological approach to entomology. Ent. Gaz., London **1** 1950 pp. 201–216, 6 figs.

1427.—Jarvis, F. V. L. Further observations on hibernation. Trans. S. London ent. nat. Hist. Soc. **1950-51** 1951 pp. 96–106. [Lep.]

1428.—Jeannel, R. Expedition to South-West Arabia 1937–8. Coleoptera : Pselaphidae. London, Brit. Mus. (Nat. Hist.) **1** 1951 pp. 299–305, 5 figs.

1429.—Jeannel, R. Entomological expeditions to Abyssinia, 1926–27 and 1948–49. Coleoptera, Pselaphidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 225–249, 24 figs.

1430.—Jeannel, R. Psélaphides recueillis par N. Leleup au Congo belge. Ann. Mus. Congo belge, Brussels (Sér. 8°) Zool. **10** 1951 80 pp. 37 figs. [Col.]

1431.—Jeannel, R. Révision des Anchomenini de la région malgache (Coleoptera Pterostichidae). Mém. Inst. sci. Madagascar, Paris **6A** 1951 pp. 285–351, 35 figs.

1432.—Jeannel, R. Un *Limnastis* aveugle de Tenerife (Col. Carabidae). Mem. Soc. españ. Hist. nat., Madrid **15** 1929 pp. 825–828, 4 figs.

1433.—Jeannel, R. Psélaphides de l'Angola (Coléoptères) recueillis par M. A. de Barros Machado. Publ. cult. Comp. Diam. Angola, Lisbon no. 9 1951 125 pp. 74 figs.

1434.—Jeannel, R. Hautes montagnes d'Afrique vers les neiges

éternelles sous l'équateur. Publ. Mus. Hist. nat., Paris Suppl. no. 1 1950 253 pp., 44 pls. 44 figs.

1435.—Jeannel, R. Sur la systématique des genres de la tribu Pselaphini Raffray (Coleoptera Pselaphidae). Rev. franç. Ent., Paris **18** 1951 pp. 5–11.

1436.—Jeannel, R. Evolution de l'organe copulateur mâle des *Arthromelus* Jeannel (Coleoptera Pselaphidae). Rev. franç. Ent., Paris **18** 1951 pp. 49–55, 9 figs.

1437.—Jeannel, R. Psélaphides récoltés par N. Leleup au Congo belge. Rev. franç. Ent., Paris **18** 1951 pp. 126–142, 11 figs. [Col.]

1438.—Jeannel, R. Un *Oritocatops* nouveau du Kivu et du Ruanda (Coleoptera Catopidae). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 73–77, 5 figs.

Jeannel, R. *see* Basilewsky, P.

1439.—Jedlička, A. Les Carabides nouveaux de l'Asie orientale (Col.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 108–116, 8 figs.

1440.—Jedlička, A. Les *Chlaenius* de la Collection de Muséum de Budapest. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 133–137. [Col.]

1441.—Jenkins, D. W. & **Hassett,** C. C. Dispersal and flight range of subarctic mosquitoes marked with radiophosphorus. Canad. J. Zool., Ottawa **29** 1951 pp. 178–187, 2 pls. 2 figs. [Dipt.]

Jenkins, D. W. *see* Hassett & Jenkins.

1442.—Jensen, C. F. A faunistic-biological investigation on the Skern Á, a river in West Jutland. I. Plecoptera. [In Danish with English summary.] Flora og Fauna, Copenhagen **57** 1951 pp. 17–40, 20 figs.

1443.—Jensen, D. D. The North American species of *Psylla* from willow, with descriptions of new species and notes on biology (Homoptera : Psyllidae). Hilgardia, Berkeley **20** 1951 pp. 299–324, 5 figs.

1444.—Jensen, D. D. & **Knowlton,** G. F. The Psyllidae of Utah. Mimeogr. Ser. Utah agric. Exp. Sta., Logan no. 380 1951 5 pp. [Hem.]

1445.—Jensen, J. A. & **Fay,** R. W. Tagging of adult house flies and flesh flies with radioactive phosphorus. Amer. J. trop. Med., Baltimore **31** 1951 pp. 523–530. [Dipt.]

1446.—Jettmar, H. M. Ueber die Resistenz der aquatischen Entwicklungsformen der Stechmücken gegen Trocknung. Arch. Hyg. Bakt., Münich **134** 1951 pp. 11–26, 8 figs. [Dipt.]

1447.—Jeuniaux, C. Notes sur la faune des Hautes-Fagnes en Belgique. XXII. Coleoptera : Elateridae. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 206–228, 4 maps.

1447A.—Joannis, J. de. Revision critique des espèces de Lépidoptères cécidogènes d'Europe et du bassin de la Méditerranée. Ann. Soc. ent. France, Paris **91** 1922 pp. 73–115.

1448.—Jobling, B. A record of the Streblidae from the Philippines and other Pacific Islands, including morphology of the abdomen, host-parasite relationship and geographical distribution, and with descriptions of five new species (Diptera). Trans. R. ent. Soc. London **102** 1951 pp. 211–246, 10 figs. 2 maps.

1449.—Johannsen, O. A. Revision of the species of the subgenus *Trichocladius* from the northeastern States (Chironomidae, Diptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 24–27.

1450.—Johannsen, O. A. A new *Pterobosca* from Florida with a key to American species. Florida Ent., Gainesville **33** (1950) 1951 pp. 141–144. [Dipt.]

1451.—Johansson, A. S. Studies on the relation between *Apanteles glomeratus* L. (Hym., Braconidae) and *Pieris brassicae* L. (Lepid., Pieridae). Norsk ent. Tidsskr., Oslo **8** 1951 pp. 145–186, 12 figs.

1452.—Johnson, C. G. The study of wind-borne insect populations in relation to terrestrial ecology, flight periodicity and the estimation of aerial populations. Sci. Progr., London no. 153 1951 pp. 41–62, 4 figs.

1453.—Johnson, C. G. & **Eastop,** V. F. Aphids captured in a Rothamsted suction trap, 5 ft. above ground level, from June to November, 1947. Proc. R. ent. Soc. London (A) **26** 1951 pp. 17–24. [Hem.]

1454.—Johnson, C. G. & **Penman,** H. L. Relationship of Aphid density to altitude. Nature, London **168** 1951 pp. 337–338, 2 figs. [Hem.]

1455.—Jolivet, P. Notes sur la faune des Hautes-Fagnes en Belgique. XXI. Coleoptera : Chrysomeloidea. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 151–168.

1456.—Jolivet, P. Contribution à l'étude du genre *Gastrophysa* Chevrolat (Coleoptera Chrysomelidae). 1–3 Notes. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 9, 11 pp. 6 figs., no. 13, 12 pp. 1 map 4 figs., no. 21, 47 pp. 2 pls. 24 figs.

1457.—Jolivet, P. Contribution à l'étude des *Microtheca* Stål (Coleoptera Chrysomelidae) (2me note). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 38, 7 pp. 2 figs.

1458.—Jolivet, P. Variations géographiques chez deux espèces du genre *Chrysolina* Motschulsky (Coleoptera Chrysomelidae). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 51, 7 pp.

1459.—Jolivet, P. Contribution à l'étude des Coléoptères Chrysomeloidea de la région Indo-australienne (1re note). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 52, 7 pp., 3 figs.

1460.—Jolivet, P. Un nouveau *Stenoplatys* Baly du Congo belge (Col. Galerucidae). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 58, 4 pp., 2 figs.

1461.—Jolivet, P. Les *Cyrtonus* de France (Col. Chrysomelidae). Entomologiste, Paris **7** 1951 pp. 106–109, 3 figs.

1462.—Jolivet, P. La loi de Maulik et les plantes-hôtes des Chrysomélides. Entomologiste, Paris **7** 1951 pp. 154–156. [Col.]

1463.—Jolivet, P. Sagridae, Clytridae (Coleoptera Chrysomeloidea). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 77 1951 pp. 31–32, 33–43, 4 figs.

1464.—Jolivet, P. Megalopodidae (pp. 13–14). Sagridae (p. 15) (Coleoptera Chrysomeloidea). Explor. Parc nat. de l'Upemba, Miss. de Witte (1946–49), Brussels no. 4 1951.

1465.—Jolivet, P. Les Chrysomèles rares de la Belgique. I. *Timarcha metallica* Laich. Nat. Belges, Brussels **32** 1951 pp. 150–155, 2 figs. [Col.]

1466.—Jolivet, P. Un nouveau *Chlamys* du Congo belge (Col. Chlamydidae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 247–250, 3 figs.

1467.—Jolivet, P. & **Théodoridès,** J. Les parasites, phorétiques et prédateurs des Chrysomeloidea (Coleoptera) (2me note). Bull. Inst. Sci. nat. Belg., Brussels **27** 1951 no. 25 55 pp.

1468.—Joly, P. Rôle de l'organe de Brunner chez *Locusta migratoria* (L.). C.R. Soc. Biol., Paris **145** 1951 pp. 1354–1357. [Orth.]

1469.—Joly, P. Déterminisme endocrine de la pigmentation chez *Locusta migratoria* L. C.R. Soc. Biol., Paris **145** 1951 pp. 1362–1364. [Orth.]

1470.—Jones, E. W. Laboratory studies on the moisture relations of *Limonius* (Coleoptera, Elateridae). Ecology, Lancaster, Pa. **32** 1951 pp. 284–293, 2 figs.

1471.—Jones, J. C. Cytopathology of the hemocytes of *Tenebrio molitor* Linnaeus (Coleoptera). [Abstract of thesis.] Iowa St. Coll. J. Sci., Ames **25** 1951 pp. 271–272.

1472.—Jones, J. R. E. An ecological study of the River Towy. J. Anim. Ecol., London **20** 1951 pp. 68–86, 3 figs.

1473.—Jordan, K. H. C. Bestimmungstabellen der Familien von Wanzenlarven. Zool. Anz., Leipzig **147** 1951 pp. 24–31, 4 figs. [Hem.]

1474.—Jordan, K. H. C. Zoogeographische Betrachtungen über das östliche Sachsen, dargestellt an deutschen Neufunden von Heteropteren. Zool. Anz., Leipzig **147** 1951 pp. 79–84, 4 figs. [Hem.]

1475.—Jordan, K. H. C. Autotomie bei *Mesovelia furcata* Mls. R. (Hem. Het. Mesoveliidae). Zool. Anz., Leipzig **147** 1951 pp. 205–209, 4 figs.

1476.—Jörg, M. E. Anatomía microscópica de glándulas cericígenas en orugas de *Artace obumbrata* Köhler. Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 173–175, 4 figs. [Lep.]

1477.—Jöst, H. Eine neue Form von *Eustrotia olivana* Schiff. (= *Erastria argentula* Hb.). Ent. Z., Frankfurt a. M. **60** 1950 pp. 29–31, 3 figs. [Lep.]

1478.—Joyeux, C. Modifications dans le rythme des métamorphoses de *Tenebrio molitor* L. à la suite d'un transport d'Europe en Argentine. Vie et Milieu, Paris **2** 1951 pp. 65–68. [Col.]

1479.—Judd, W. W. Nymphal mites of the genus *Uropoda* attached to a Cerambycid beetle. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 608–609, 1 pl. [Col.]

1480.—Judd, W. W. The proventriculus of some locusts of the family Eumastacidae (Orthoptera) with reference to its use in taxonomy. Canad. J. Zool., Ottawa **29** 1951 pp. 219–223, 2 figs.

1481.—Judd, W. W. Hymenoptera and an inquiline moth reared from the goldenrod gall caused by *Gnorimoschema gallaesolidaginis* Riley (Lepidoptera). Proc. Nova Scotia Inst. Sci., Halifax **22** 1951 no. 4 pp. 1–7.

1482.—Junco y Reyes, J. J. del. Himenópteros de España. Fam. Psammocharidae (olim Pompilidae). II. Claveliinae Calicurgini. Eos, Madrid **27** 1951 pp. 143–233, 2 pls. 59 figs.

1483.—Justino, I. G. Lepidópteros do Brasil meridional III. Bol. Inst. geobiol. La Salle, Canoas no. 5 1951 pp. 16–17.

1484.—Juul, K. Nordens Eupithecier. Aarhus, Gravers Andersens Forlag 1948 147 pp. 6 col. pls. many maps. [Lep.]

1485.—Juul, K. *Earias vernana* Hb. Nogle Oplysringer om larvens biologi. Flora og Fauna, Copenhagen **56** 1950 pp. 150–152, 8 figs. [Lep.]

1486.—Kabos, W. J. De Diptera Brachycera van het eiland Texel, oecologisch beschouwd. Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 108–130, 9 figs.

1487.—Kadner, C. G. & **La Fleur,** F. M. The vitamin requirements of *Phaenicia sericata* (Meigen) larvae (Diptera : Calliphoridae). Wasmann J. Biol., San Francisco **9** 1951 pp. 129–136, 1 fig.

1488.—Kaiser, P. Zur Kenntnis der Oenocyten. Histologische Untersuchungen am Grossen Kohlweissling. Zool. Anz., Leipzig **145** 1950 Ergänzungsband pp. 364–372, 4 figs. [Lep.]

1489.—Kajihiro, E. S. & **Millspaugh,** D. D. A preliminary list of the Buprestidae (Coleoptera) known to occur in Iowa. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [? 1951] pp. 541–543.

1490.—Kalík, V. New Dermestidae of the Palaearctic fauna (2nd contribution). Acta ent. Mus. nat. Pragae **26** 1949 no. 362 4 pp., 4 figs. [Col.]

1491.—Kalík, V. Neue Dermestiden aus der palaearktischen Fauna. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. .152–156, 3 figs. [Col.].

1492.—Kalík, V. Notes sur quelques espèces et formes du genre *Dermestes* L. Ent. Listy, Brno **14** 1951 pp. 39–46, 12 figs. 1 map. [Col.].

1493.—Kalis, J. P. A. & **Toxopeus,** L. J. Notes on some rare butterflies and moths from the Island of Celebes. Idea, Bogor **8** 1951 pp. 92–97.

1494.—Kałkowski, W., **Rumek,** A., **Franckiewicz,** H. & **Wojtusiak,** H. & R. J. Investigations on the bottom fauna and flora in the Gulf of Gdańsk made by using a diving helmet. Part IV. Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 223–267, 21 figs.

1495.—Kalshoven, L. G. E. De plagen van de cultuurgewassen in Indonesië. Deel II. 's-Gravenhage, W. Van Hoeve 1951 pp. [1+]

513–1065, 8 col. pls. 281 figs. (English translations of the text for illustrations 14 pp.)

1496.—Kamal Bey, M. Biological control projects in Egypt, with a list of introduced parasites and predators. Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 205–220.

1497.—Kamal Bey, M. The biological control of the cotton leafworm (*Prodenia litura* F.) in Egypt. Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 221–270, 1 col. pl. [Lep.]

1498.—Kamp, H. J. Zwei neue Frasspflanzen der Gattung *Pityokteines* Fuchs (Col.). Ent. Z., Frankfurt a. M. **60** 1951 pp. 157–159.

1499.—Kano, R. Notes on the flies of medical importance in Japan (Part IV). Flies of Itachijo area. Jap. J. exp. Med., Tokyo **21** 1951 pp. 223–227, 11 figs. [Dipt.]

1500.—Kano, R. & **Sato,** K. Notes on the flies of medical importance in Japan. (Parts III & V). Jap. J. exp. Med., Tokyo **21** 1951 pp. 133–140, 21 figs., 229–241, 14 figs. [Dipt.]

1501.—Kano, R., **Sato,** K. & **Tange,** H. Notes on the flies of medical importance in Japan (Part II). The larvae of *Sarcophaga* known in Japan. Jap. J. exp. Med., Tokyo **21** 1951 pp. 115–131, 63 figs. [Dipt.]

Kano, R. *see* Sasa & Kano.

Kao, C. S. *see* Chu & Kao.

1502.—Kapur, A. P. Expedition to South-West Arabia 1937–8. Coleoptera : Coccinellidae. London, Brit. Mus. (Nat. Hist.) **1** 1951 pp. 275–297, 2 pls. 1 fig.

1503.—Kapur, A. P. Further notes on the Indian species of *Rodolia* Mulsant (Coleoptera : Coccinellidae). Rec. Indian Mus., Calcutta **48** 1951 pp. 1–7, 2 figs.

Kapuściński, S. *see* Borusiewicz & Kapuściński.

1504.—Karabag, T. Revision of the genus *Anterastes* Brunner (Orthoptera, Tettigoniidae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1043–1051, 32 figs.

Karasawa, T. *see* Suzuki,Karasawa, Kimura & Motomura.

Kardos, E. H. *see* Knowlton & Kardos.

1505.—[Karnozhitzkiĭ, N.] Review of halobiont and halophil Coleoptera of Bulgarian Black Sea shores. [In Serbian with English summary.] Trav. Stat. biol. marit. de Stalin (Bulgarie), Belgrade no. 15 1949 pp. 1–66, 1 fig.

Kartman, L. *see* Barr & Kartman.

1506.—Kaszab, Z. Revision der Cerocominen. Acta biol. Acad. Sci. hung., Budapest **2** 1951 pp. 255–274. [Col.]

1507.—Kaszab, Z. Ueber die Arten der Gattung *Oenas*. Acta biol. Acad. Sci. hung., Budapest **2** 1951 pp. 275–279. [Col.]

1508.—Kaszab, Z. Neue Revision der Gattung *Alosimus* Muls. (Col., Meloidae). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 138–151.

1509.—Kaszab, Z. Eine neue *Zonitis* Art (Coleopt., Meloidae) aus dem tropischen Afrika. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 166–168.

1510.—Kaszab, Z. A new species of *Gonocephalum* (Col., Tenebrionidae) from the Philippine Islands. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 182–185.

1511.—Kaszab, Z. Neue Meloiden (Coleoptera) aus Südafrika. Ann. Transv. Mus., Pretoria **21** 1951 pp. 429–437, 53 figs.

1512.—Kaszab, Z. Résultats de la Mission Zoologique Suisse au Cameroun. Ténébrionides. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 pp. 223–225. [Col.]

1513.—Kaudewitz, H. Zur Einführung in die Mikroskopie. Die Fixierung von Material für Uebersichtspräparate. Mikrokosmos, Stuttgart **41** 1951 pp. 69–71, 3 figs.

1514.—Kauffmann, G. *Pyrgus centaureae* Rbr. *lineolata* nov. (Lep. Hesperidae). Ent. Z., Frankfurt a. M. **59** 1950 pp. 177–180, 1 fig.

1515.—Kauffmann, G. Eine Eizucht von *Pyrgus malvoides* Elw. u.

Edw. (Lep. Hesperidae). Ent. Z., Frankfurt a. M. **60** 1950 pp. 33–38, 45–47, 1 fig.

1516.—Kauffmann, G. Die Hesperiidae der Schweiz. Rassenanalytische Bemerkungen über Verbreitung und Formen dieser Familie. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 329–376. [Lep.]

1517.—Kauri, H. Bemerkungen über schwedische Tabaniden. Opusc. ent., Lund **16** 1951 pp. 97–109, 8 figs. [Dipt.]

Kaussari, M. *see* Balachowsky & Kaussari.

1518.—Keiser, F. Die Unterfamilie der Lochmostyliinae (Dipt., Pyrgotidae) nebst Beschreibung einer neuen Gattung und Art aus dem indo-australischen Faunengebiet. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 113–124, 10 figs.

1519.—Kekenbosch, J. Note sur la dispersion, en Belgique, du *Carabus* (*Chaetocarabus*) *intricatus* Linné (Coleoptera, Carabidae). Nat. Belges, Brussels **32** 1951 pp. 111–114, 1 fig.

1520.—Kéler, S. von. Bemerkungen zu Eichlers " Ergänzung " meiner " Uebersicht über die gesamte Literatur der Mallophagen ". Z. angew. Ent., Berlin **32** 1951 pp. 610–612.

1521.—Kéler, S. v. Zwei neue Mallophagenarten von *Atlantisia rogersi* Lowe. Z. Parasitenk., Berlin **15** 1951 pp. 34–56, 11 figs.

1522.—Kéler, S. v. Ueber Homer's " kynoraistes ". Zool. Anz., Leipzig **147** 1951 pp. 265–267.

1523.—Kemp, P. B. Field observations on the activity of *Pheidole*. Bull. ent. Res., London **42** 1951 pp. 201–206, 4 figs. [Hym.]

1524.—Kemper, H. Beobachtungen an *Crataerina pallida* Latr. und *Melophagus ovinus* L. (Diptera, Pupipara). I. Beitrag. Z. hyg. Zool., Berlin **39** 1951 pp. 225–259, 10 figs.

1525.—Kempf, W. W. A taxonomic study on the ant tribe Cephalotini (Hymenoptera : Formicidae). Rev. Ent., Rio de Janeiro **22** 1951 pp. 1–244, 157 figs.

1526.—Kennedy, C. H. Myrmecological technique IV. Collecting ants by rearing pupae. Ohio J. Sci., Columbus **51** 1951 pp. 17–20. [Hym.]

1527.—Kennedy, J. S. The migration of the desert locust (*Schistocerca gregaria* Forsk.). I. The behaviour of swarms. II. A theory of long-range migrations. Philos. Trans., London B **235** 1951 pp. 163–290. [Orth.]

1528.—Kenrick, Sir G. H. New or little-known Heterocera from Madagascar. Trans. ent. Soc. London **1913** 1914 pp. 587–602, 2 col. pls. [Lep.]

1529.—Kerr, W. E. Sex-chromosome in honey-bee. Evolution, Lancaster, Pa. **5** 1951 pp. 80–81, 1 fig. [Hym.]

1530.—Kerstens, G. Einiges über Käfer aus dem Weser/Emsgebiet. Beitr. Naturk. Niedersachs., Hanover **3** 1950 pp. 41–46. [Col.]

1531.—Kessel, E. L. *Metaclythia*, a new genus of flat-footed flies, and the description of a new species (Diptera : Clythiidae). Wasmann J. Biol., San Francisco **9** 1951 pp. 347–350.

1532.—Kessel, E. L. & B. B. A new species of balloon-bearing *Empis* and an account of its mating activities (Diptera : Empididae). Wasmann J. Biol., San Francisco **9** 1951 pp. 137–146.

1533.—Kettle, D. S. The spatial distribution of *Culicoides impunctatus* Goet. under woodland and moorland conditions and its flight-range through woodland. Bull. ent. Res., London **42** 1951 pp. 239–291, 2 pls. 13 figs. [Dipt.]

1534.—Kettle, D. S. Some factors affecting the population density and flight range of insects. Proc. R. ent. Soc. London (A) **26** 1951 pp. 59–63, 3 figs.

1535.—Kevan, D. K. McE. Records of Trinidad earwigs (Dermaptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 249–257.

1536.—Kevan, D. K. McE. Preliminary records of some Acridoidea (Orthoptera) from remote parts of East Africa. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 713–718.

1537.—Kevan, D. K. McE. Eine neue *Parasphena*-Art (Orthopt., Acridiidae) in der Sammlung des Zoologischen Museums der Universität in Helsingfors. Notul. ent., Helsinki **31** 1951 pp. 15–18, 4 figs.

Khadzhibeĭli, Z. K. *see* Borkhsenius & Khadzhibeĭli.

1538.—Khalifa, Abd el Fattah. The biology of spermatophore production in insects. Abstr. Diss. Univ. Cambridge **1948-49** 1950 pp. 27–28.

Khan *see* Qadiruddin Khan.

1538A.—Kieffer, J. J. Chironomides de l'Afrique équatoriale (2e partie). Ann. Soc. ent. France, Paris **91** 1922 pp. 1–72, 4 pls. [Dipt.]

1539.—Kimmins, D. E. Indian caddis flies.—IV. New genera and species of the family Hydroptilidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 193–213, 11 figs. [Trichopt.]

1540.—Kimmins, D. E. *Apatidea inornata* (Wallengren) and *A. auricula* (Forsslund) (Trichoptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 410–416, 3 figs.

1541.—Kimmins, D. E. New species of Neuroptera from the Solomon Islands. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 780–785, 5 figs.

1542.—Kimmins, D. E. A revision of the Australian and Tasmanian Gripopterygidae and Nemouridae (Plecoptera). Bull. Brit. Mus. (Nat. Hist.), London Ent. **2** 1951 pp. 45–93, 40 figs.

1543.—Kimmins, D. E. Two new South American Aeshnidae (Odonata). Ent. News, Philadelphia **62** 1951 pp. 43–48, 9 figs.

1544.—Kimmins, D. E. A note on the females of the British species of Beraeidae (Trichoptera). Entomologist, London **84** 1951 pp. 19–21, 1 fig.

1545.—Kimmins, D. E. Two new species of East African Neuroptera. Entomologist, London **84** 1951 pp. 136–139, 9 figs.

1546.—Kimmins, D. E. The 3rd Danish Expedition to Central Asia. Zoological results 4. Odonata, Ephemeroptera and Neuroptera (Insecta) from Afghanistan. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **112** 1950 pp. 235–241, 2 figs.

1547.—Kimmins, D. E. & **Denning,** D. G. The McLachlan types of North American Trichoptera in the British Museum. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 111–140, 9 pls.

Kimura, R. *see* Suzuki, Karasawa, Kimura & Motomura.

King, E. W. *see* Sanderson & King.

King, J. C. *see* Wallace & King.

1548.—King, R. L. & **Walters,** F. Population of a colony of *Formica rufa melanotica* Emery. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [?1951] pp. 469–473, 1 fig. [Hym.]

1549.—Kiriakoff, S. G. Recherches sur les organes tympaniques des Lépidoptères en rapport avec la classification. VI. Nyctemeridae. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 106–129.

1550.—Kiriakoff, S. G. Recherches sur les organes tympaniques des Lépidoptères en rapport avec la classification. VII. Lithosiidae. Biol. Jaarb., The Hague **18** 1951 pp. 53–76, 7 figs.

1551.—Kiriakoff, S. G. Recherches sur les organes tympaniques des Lépidoptères en rapport avec la classification. VIII. Cocytiidae. Ent. Ber., Amsterdam **13** 1951 pp. 381–382.

1552.—Kiriakoff, S. G. Recherches sur les organes tympaniques des Lépidoptères en rapport avec la classification. Lambillionea, Brussels **50** (1950) 1951 pp. 62–73, 4 figs.

1553.—[Kirichenko, A. N.] Nests of birds as a biotope of the true Hemiptera. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 239–241.

1554.—[Kirichenko, A. N.] True semi-hard-winged Hemiptera-Heteroptera, collected by the Academician E. N. Pavlovskiĭ in 1942 in Iran. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 878–887.

1555.—Kirk, R. & **Lewis,** D. J. The Phlebotominae of the Ethiopian

Region. Trans. R. ent. Soc. London **102** 1951 pp. 383–510, 74 figs. [Dipt.]

Kirk, R. *see* Lewis & Kirk.

1556.—[**Kirshenblat,** Ya. D.] New species of the genus *Philonthus* Curt. (Coleoptera, Staphylinidae) of the fauna of the Soviet Union. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 237–242.

1557.—**Klefbeck,** E. Insects and other terrestrial Arthropoda from Anholt. Opusc. ent., Lund **16** 1951 pp. 17–26, 3 figs.

1558.—**Klein,** A. Quelques observations relatives à la récolte et à l'élevage de *Synanthedon vespiformis* L. Bull. Soc. ent. Mulhouse **1951** 1951 pp. 53–55, 10 figs. [Lep.]

1559.—**Kleine,** R. Lycidae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 295–306, 20 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 283–294, 20 figs.]

1560.—**Kleinschmidt,** O. Ueber Vanessen und andere Tagfalter aus China. Bonn. zool. Beitr. **1** (1950) 1951 pp. 276–285, 2 figs. [Lep.]

1561.—**Klimesch,** J. Contributo alla fauna Lepidotterologica del Trentino. Studi Trentini Sci. nat. **27** 1950 pp. 11–68, 10 pls. 2 figs.

1562.—**Klimesch,** J. Note morfologiche e biologiche sulla *Lampronia* (*Incurvaria*) *aereipennella* Rbl. (Lep., Incurvariidae). Studi Trentini Sci. nat. **27** 1950 pp. 79–84, 3 pls.

1563.—**Klimesch,** J. *Bucculatrix clavenae* spec. nov. (Lep., Bucculatrigidae). Z. wien. ent. Ges., Vienna **35** 1950 pp. 138–142, 1 pl. 7 figs.

1564.—**Klimesch,** J. Zur Chaetotaxie der Raupe von *Bucculatrix fatigatella* Heyd. (Lep., Bucculatrigidae). Z. wien. ent. Ges., Vienna **35** 1950 pp. 143–145, 4 figs.

1565.—**Klimesch,** J. Zur Kenntnis der Genitalmorphologie einiger *Nepticula*-Arten (Lep., Nepticulidae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 4–9, 7 figs.

1566.—**Klimesch,** J. *Nepticula* (*Levarchama*) *ortneri* spec. nov. (Lept., Nepticulidae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 66–70, 6 figs.

1567.—**Klimesch,** J. Ueber Microlepidopteren des Traunsteingebietes in Oberösterreich. Z. wien. ent. Ges., Vienna **36** 1951 pp. 101–117, 27 figs.

1568.—**Kloft,** W. Vergleichende Untersuchungen an einigen Cocciden und Aphiden. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 290–296, 5 figs. [Hem.]

1569.—**Klots,** A. B. A field guide to the butterflies of North America, east of the Great Plains. Cambridge, Mass., Riverside Press 1951 xvi & 349 pp. 40 pls. [Lep.]

1570.—**Klynstra,** B. H. Mededelingen over Nederlandse Adephaga (Col.) III. Ent. Ber., Amsterdam **13** 1951 pp. 369–372.

1571.—**Knaben,** N. Notes on the Norwegian Lepidoptera (Noctuidae, Geometridae). Norsk ent. Tidsskr., Oslo **8** 1951 pp. 203–206, 2 figs.

1572.—**Knight,** K. L. The *Aedes* (*Ochlerotatus*) *punctor* subgroup in North America (Diptera, Culicidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 87–99, 1 pl.

1573.—**Knight,** K. L. & **Abdel Malek,** A. A. A morphological and biological study of *Culex pipiens* in the Cairo area of Egypt (Diptera-Culicidae). Bull. Soc. Fouad 1er Ent., Cairo **35** 1951 pp. 175–185.

1574.—**Knight,** K. L. & **Hull,** W. B. Three new species of *Aëdes* from the Philippines (Diptera, Culicidae). Pacific Sci., Honolulu **5** 1951 pp. 197–203, 2 figs.

1575.—**Knight,** K. L. & **Hull,** W. B. The *Aëdes* mosquitoes of the Philippine Islands. I. Keys to species of the subgenera *Mucidus*, *Ochlerotatus*, and *Finlaya* (Diptera, Culicidae). Pacific Sci., Honolulu **5** 1951 pp. 211–251, 13 figs.

Knight, K. L. *see* Hoogstraal & Knight; Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

1576.—**Knight,** V. Le M. Fossil insect beds of Belmont, N.S.W. Rec. Aust. Mus., Sydney **22** 1950 pp. 251–253, 1 map.

1577.—**Knipping,** P. A., **Morgan,** B. B. & **Dicke,** R. J. Preliminary list of some fleas from Wisconsin.

Trans. Wisc. Acad. Sci. Arts Lett., Madison **40** 1950 pp. 199–206. [Siphonapt.]

1578.—Knowlton, G. F. & **Kardos,** E. H. Utah Heleidae. J. Kansas ent. Soc., Manhattan **24** 1951 p. 163. [Dipt.]

Knowlton, G. F. *see* Jensen & Knowlton.

1579.—Knull, D. J. Additions to list of Ohio leafhoppers (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **51** 1951 p. 16.

1580.—Knull, D. J. Sixteen new leafhoppers and notes (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **51** 1951 pp. 169–178, 2 pls.

1581.—Knull, D. J. Eight new leafhoppers from the United States (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **51** 1951 pp. 179–183, 1 fig.

Knull, D. J. *see* DeLong & Knull.

1582.—Knull, J. N. The checkered beetles of Ohio (Coleoptera : Cleridae). Bull. Ohio biol. Surv., Columbus **8** 1951 pp. 269–350, 13 pls.

1583.—Knull, J. N. Two new species and one subspecies of North American Buprestidae (Coleoptera). Ohio J. Sci., Columbus **51** 1951 pp. 87–89, 9 figs.

1584.—Kobayashi, T. The developmental stages of four species of the Japanese Pentatomidae (Hemiptera). Trans. Shikoku ent. Soc. **2** 1951 pp. 7–16, 4 figs.

1585.—Koch, A. Die Bakteriensymbiose der Kopflaus. Mikrokosmos, Stuttgart **41** 1951 pp. 3–6, 5 figs. [Anopl.]

1586.—Koch, C. The Tenebrionidae of southern Africa. VII. Preliminary notes on the South African Adesmiini. Ann. Transv. Mus., Pretoria **21** 1951 pp. 385–417, 3 figs. [Col.]

1587.—Koch, C. Die Tenebrioniden des südlichen Afrikas. VII.—*Arturium* nov. gen. Molurinorum ex aff. *Phrynocolus* Lac. Atti Soc. ital. Sci. nat., Milan **90** 1951 pp. 89–96, 1 pl. 2 figs. [Col.]

1588.—Koch, C. Beitrag zur Kenntnis der Gattung *Adesmia* (Col. Tenebrionid.). Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 121–130.

1589.—Koch, C. The Tenebrionidae (Col.) of southern Africa. V.—Contribution to the knowledge of the *Caedius*-group of Opatrini and the Crypticini from south of the Sahara. Mem. Mus. Alvaro de Castro, Lourenço Marques no. 1 1950 pp. 35–84, 6 pls.

1590.—Koch, M. Raupenzuchten I. Ent. Z., Frankfurt a. M. **60** 1950 pp. 89–95, 100–104, 114–120, 127–128.

1591.—Koch, M. Lichtfang mit der Höhensonne III. Z. wien. ent. Ges., Vienna **35** 1950 pp. 147–153. [Lep.]

1592.—Kocher, L. Prospection entomologique dans le Djebel Sarro. Bull. Soc. Sci. nat. Maroc, Rabat **29** (1949) 1951 pp. 299–310. [Col.]

1593.—Kocher, L. Notes sur les *Erodius* marocains (Contribution à l'étude systématique du genre). Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 195–230, 4 figs. 2 maps. [Col.]

1594.—Kocher, L. Les Coléoptères cavernicoles du Maroc. C.R. Soc. Sci. nat. Maroc, Rabat **1951** 1951 no. 3 pp. 33–34.

1595.—Koehler, W. Fauna of ants in the National Park of Pieniny Mountains. [In Polish with English summary.] Państw. Wydawn. Roln. Leśne, Warsaw 1951 55 pp. 4 figs. 1 fldg. chart. [Hym.]

1596.—Koenen, F. Von der Lebensdauer der Käfer (Gelbrandbeobachtungen). Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 134–136, 153–154. [Col.]

1597.—Köhler, P. Descripción de una especie nueva de *Artace* (Lep. Lasiocampidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 p. 164.

1598.—[Kolobova, A. N.] The clover and lucerne races of the seed eater *Bruchophagus gibbus* Boh. (Hymenoptera, Eurytomidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 63–70, 5 figs.

1599.—Komai, T. & **Hosino,** Y. Contributions to the evolutionary genetics of the lady-beetle, *Harmonia*.

II. Microgeographic variation. Genetics, New York **36** 1951 pp. 382–390, 2 figs. [Col.]

1600.—Komárek, J. Česká Zvířena [Czech fauna]. [In Czech.] Melantrich 1950 348 pp. 8 col. pls. 192 figs.

1601.—Komárek, O. Quelques Microlépidoptères intéressants dans le bassin supérieur du fleuve de l'Elbe (Bohême). [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 86–89.

1602.—Komp, W. H. W. & **Rozeboom,** L. E. Descriptions of eight new species of *Culex* subgenus *Melanoconion* (Diptera, Culicidae). Proc. ent. Soc. Washington **53** 1951 pp. 121–133, 4 pls.

Kondrat'eva, V. K. *see* Demyanovskiĭ, Nefedova & Kondrat'eva.

1603.—Kontuniemi, T. Zur Kenntnis des Lebenszyklus der Sägewespen (Hymenoptera, Symphyta) in Finnland. Acta ent. fenn., Helsinki **9** 1951 pp. 1–92, 22 figs. 2 maps.

1604.—Koornneef, J. Loose aantekeningen over Hymenoptera. Ent. Ber., Amsterdam **13** 1951 pp. 244–249.

Koref, S. *see* Brncić & Koref.

Korell, A. *see* Poschinger & Korell.

1605.—Kormilev, N. A. Notas Hemipterológicas. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 495–503, 1 pl. 4 figs.

1606.—Kormilev, N. A. Notas sobre Phymatidae neotropicales II, con la descripción de cuatro especies nuevas (Hemiptera). An. Soc. cient. argent., Buenos Aires **152** 1951 pp. 167–178, 4 figs.

1607.—Kormilev, N. A. Aradidae Argentinos I (Hemiptera). Comun. Inst. Invest. Cienc. nat., Buenos Aires (Ci. zool.) **2** 1951 pp. 83–95, 1 map.

1608.—Kormilev, N. A. Notas sobre Phymatidae neotropicales III. Con la descripción de dos especies nuevas (Hemiptera). Misión Estud. Pat. reg. argent., Buenos Aires **22** 1951 no. 79 pp. 53–58, 4 figs.

1609.—Kormilev, N. A. Notas sobre Colobathristidae neotropicales (Hemiptera), I, II. Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 63–84, 17 figs., 333–339, 3 figs.

1610.—Kormilev, N. A. Phymatidae Argentinas (Hemiptera) con observaciones sobre Phymatidae en general. Rev. Inst. Invest. Cienc. nat., Buenos Aires (Ci. zool.) **2** 1951 pp. 45–110, 14 pls. 8 figs. 3 maps.

1611.—Kormilev, N. A. Sobre los géneros *Vulsirea* Spinola (1837), *Ramosiana* Kormilev (1950) y *Adoxoplatys* Breddin (1903), con la descripción de tres especies nuevas (Hemipt. Pentat.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 83–94, 13 figs.

Kornaś, A. & J. *see* Wojtusiak, Kornaś & Franckiewicz.

1612.—Korschefsky, R. Bestimmungstabelle der bekanntesten deutschen Lyciden-, Lampyriden- und Drilidenlarven (Coleoptera). Beitr. Ent., Berlin **1** 1951 pp. 60–64, 1 pl. 3 figs.

1613.—Kotzsch, H. Am Fundort von *Parnassius autocrator* Av. Ent. Z., Frankfurt a. M. **61** 1951 pp. 25–31, 40. [Lep.]

1614.—Kovács, L. Neue Angaben über das Vorkommen einiger Makrolepidopteren. Folia ent. hungar., Budapest (N.S.) **4** 1951 pp. 5–13.

1615.—Koyama, N. Studies on the food eating habits of *Epilachna vigintioctomaculata* Motschulsky. I, II. [In Japanese with English summary.] Oyo-Kontyû, Tokyo **6** pp. 25–33 (1950), 5 figs., 192–197 (1951) 1 fig. [Col.]

Koza, R. W. *see* Harrington & Koza.

1616.—[Kozhanchikov, I. V.] On homologues in the chaetotaxy of the larvae of Trichoptera and Lepidoptera. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 185–193, 3 figs.

1617.—[Kozhanchikov, I. V.] New Mantispidae (Neuroptera) from Tadzhikistan. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 353–358, 6 figs.

1618.—[Kozhanchikov, I. V.] The cycle of development and geographical distribution of the winter Geometrid *Operophthera brumata* L. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 178–197, 8 figs. [Lep.]

1619.—[**Kozhanchikov,** I. V.] Fn. SSSR. Insects–Lepidoptera 12. (Orgyidae). [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **42** 1950 582 pp., 296 figs.

1620.—[**Kozulina,** O. V.] The mechanism of egg-laying in the clothes louse (*Pediculus humanus corporis* de Geer) and its anomaly. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 235–238, 4 figs. [Anoplura.]

1621.—**Kramář,** J. To the knowledge of the mosquitoes in Bohemia (Dipt. Nematoc.). [In Czech with English summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 60–65.

1622.—**Krejcárek,** L. Observation de la faune du département Gottwaldov en Moravie (I) (Col. Carabidae). [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 53–59.

1623.—**Krijgsman,** B. J. & **Krijgsman-Berger,** N. E. Physiological investigations into the heart function of Arthropods. The heart of *Periplaneta americana*. Bull. ent. Res., London **42** 1951 pp. 143–155. [Orth.]

1624.—**Kröber,** O. Tabanidae, Therevidae und Conopidae (Dipt.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 189–199 [all but 6 copies destroyed in the War and re-issued in 1951 as Bd. 2 pp. 184–194].

1625.—**Kröber,** O. Die Dipterenfauna des Eppendorfer Moores im Wechsel der Zeiten. Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 69–89.

1626.—**Krogh,** A. & **Weis-Fogh,** T. The respiratory exchange of the desert locust (*Schistocerca gregaria*) before, during and after flight. J. exp. Biol., London **28** 1951 pp. 344–357, 4 figs. [Orth.]

1627.—**Krombein,** K. V. Wasp visitors of tulip-tree honeydew at Dunn Loring, Virginia (Hymenoptera Aculeata). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 141–143.

1628.—**Krombein,** K. V. Additional notes on the bees of the Solomon Islands (Hymenoptera: Apoidea). Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 277–295, 1 pl.

Krombein, K. V. *see* Muesebeck, Krombein & Townes.

1629.—**Krüger,** E. Ueber die Bahnfluge der Männchen der Gattungen *Bombus* und *Psithyrus* (Bombidae Hymenopt.). Z. Tierpsychol., Berlin **8** 1951 pp. 61–75, 1 fig.

1630.—**Kruseman,** G. Note on Tendipedidae of the Suez Canal. Bijdr. Dierk., Leiden **28** 1949 pp. 249–254, 10 figs. [Dipt.]

1631.—**Kryger,** J. P. The European Mymaridae comprising the genera known up to c. 1930. [Concl.] Ent. Medd., Copenhagen **26** 1951 p. 97. [Hym.]

1632.—**Kryger,** J. P. Notes on Chalcids II. Ent. Medd., Copenhagen **26** 1951 pp. 98–121, 15 figs. [Hym.]

1633.—**Krzysztofowicz,** A. Early developmental stages of the weevil *Polydrosus sericeus* Schall. (Coleoptera, Curculionidae). Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 303–330, 27 figs. Abstract in English in C.R. Sci. math. nat. Acad. polon. **1950** 1951 no. 8–10 pp. 7–8.

Kuan, Chih-hu *see* Woo, Kuan & Luh.

1634.—**Kudla,** M. Quelques notes sur l'écologie et l'apparition de l'espèce *Scolitantides orion* Pall. (Lep., Lyc.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 132–134.

1635.—**Kudla,** M. Contribution à la connaissance de la biologie des Longicornes (Col. Ceramb.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 227–229.

1636.—**Kühn,** A. & **Berg,** A. Eine neue Mutation mit wechselnder und zeitlich beschränkter Wirkung bei *Ptychopoda seriata*. Z. Naturf., Tübingen **6b** 1951 pp. 41–44, 5 figs. [Lep.]

1637.—**Kuhn,** O. Ein vermutlicher Schmetterling *Geisfeldiella benkerti* n.g.n. sp. aus dem Lias, Nordfrankens. N. Jb. geol. Paläont. Stuttgart, Monatsh. **2** 1951 pp. 58–61, 2 figs. [Fossil, Lep.]

1638.—**Kühnelt,** W. Bodenbiologie. Herold, Vienna 1950 368 pp. 3 pls. 63 figs. [Insects pp. 135–186.]

1639.—Kühnelt, W. Sur la structure des associations biotiques terrestres. Année biol., Paris **55** 1951 pp. 117–127.

1640.—Kullenberg, B. Investigations on the pollination of *Ophrys* species. Oikos, Copenhagen **2** 1950 pp. 1–59, 1 pl. 9 figs.

1641.—Kult, K. Revision of the genus *Clivina*, Latr., from Oriental region (Col. Carabidae). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 16–32.

1642.—Kulzer, H. Vierter und fünfter Beiträge zur Kenntnis der Tenebrionidae. Ent. Arb., Münich **2** 1951 pp. 116–171, 1 pl. 9 figs., 461–573, 48 figs. [Col.]

1643.—Kumm, H. W. & **Cerqueira,** N. L. The *Haemagogus* mosquitoes of Brazil. Bull. ent. Res., London **42** 1951 pp. 169–181, 2 col. pls. 7 figs. [Dipt.]

Kuntze, K. *see* Gersdorf & Kuntze.

Kupka, E. *see* Schaerffenberg & Kupka.

1644.—[Kurentzov, A. I.] *Neptis kusnetzovi* Kurentzov, sp. n. (Lepidoptera, Nymphalidae) from Central Sikhoté-Alin'. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 362–364, 2 figs.

1645.—[Kurentzov, A. I.] New species of Lepidoptera from Sikhoté-Alin'. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 243–246.

Kurian *see* Chandy Kurian.

1646.—Kuschel, G. Revisión de *Lissorhoptrus* Leconte y géneros vecinos de América. Rev. chil. Ent., Santiago **1** 1951 pp. 23–74, 46 figs. [Col.]

1647.—Kuschel, G. La subfamilia Aterpinae en America. Rev. chil. Ent., Santiago **1** 1951 pp. 205–244, 22 figs. [Col.]

1648.—Kusnezov, N. "Dinergatogina" en *Oligomyrmex bruchi* Santschi (Hymenoptera Formicidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 177–181, 5 figs.

1649.—Kutter, H. *Epimyrma stumperi* Kutter (Hym. Formicid.). 2. Mitteilung. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 153–174, 14 figs.

Kutter, H. *see* Stumper & Kutter.

1650.—[Kuzin, B. S.] New species of Ichneumomids (Hymenoptera, Ichneumonidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 247–253, 1 fig.

1651.—La Berre, J. R. Action de la température initiale d'incubation sur la diapause embryonnaire du criquet migrateur des Landes. C.R. Acad. Sci., Paris **232** 1951 pp. 1870–1872. [Orth.]

1652.—Lack, D. & E. Migration of insects and birds through a Pyrenean pass. J. Anim. Ecol., London **20** 1951 pp. 63–67.

1653.—Lackschewitz, T. Zur Koleopterenfauna des Ostbaltischen Gebietes, III. KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 172–179.

1654.—Ladeiro, J. M. Os Pselafídeos portugueses do Museu zoológico da Universidade de Coimbra. Mem. Estud. Mus. zool. Coimbra no. 206 1951 8 pp. [Col.]

1655.—Laffoon, J. L. A wasp with three pairs of wings (Hymenoptera: Ichneumonidae). Proc. Iowa Acad. Sci., Des Moines **57** (1950) [?1951] pp. 467–468, 1 fig.

La Fleur, F. M. *see* Kadner & La Fleur.

1656.—Lafon, M. Essais sur l'alimentation d'un insecte: *Blatta orientalis* L. I. Données quantitatives sur la nutrition azotée. Physiol. comp. oecol., The Hague **2** 1951 pp. 224–240. [Orth.]

1657.—Lagarrigue, J. La faune cavernicole terrestre de la région des Causses. Bull. Soc. Hist. nat. Toulouse **85** (1950) 1951 pp. 129–150, 3 figs.

1658.—La Greca, M. Sulla distribuzione ed origine della fauna Ortotterologica degli Appennini. Annu. Ist. Mus. Zool. Univ. Napoli **3** 1951 no. 6 pp. 1–30, 5 figs.

1659.—La Greca, M. Note su alcuni interessanti Mantodei e Ortotteri dell'Italia meridionale. Boll. Soc. Nat. Napoli **59** (1950) 1951 Suppl. no. 14 pp. 1–8, 2 figs.

1660.—La Greca, M. Sulla presenza di un organo dermale nei cerci dei maschi di *Calliptamus italicus* (L.) (Orthoptera, Acrididae). Boll. Zool., Torino **17** 1950 pp. 75–80, 3 figs.

1661.—La Greca, M. Missione biologica Sagan-Omo diretta dal Prof. Edoardo Zavattari. Mantodea. Riv. Biol. colon., Rome **10** (1949–1950) 1951 pp. 83–102, 1 pl. 3 figs. [Orth.]

1662.—La Greca, M. & **Cesaro,** R. Morfologia del dermascheletro del torace di *Tropidothorax leucopterus* (Goeze) (Hemipt. Heter. Lygaeidae). Annu. Ist. Mus. Zool. Univ. Napoli **3** 1951 no. 2 pp. 1–23, 6 figs.

1663.—Laidlaw, F. F. A note on the derivation of the Odonate fauna of the Island of Ceylon. Ent. News, Lancaster, Pa. **62** 1951 pp. 77–83.

1664.—Laidlaw, W. B. R. A preliminary enquiry into the influence of solar radiation on insect environment with special reference to the relation between pest epidemics and fluctuation in solar radiation. Trans. Soc. Br. Ent., Bournemouth, Hants **11** 1951 pp. 17–80.

1665.—Laing, F. *Chermes* v. *Psylla* (Homoptera). Ent. mon. Mag., London **87** 1951 pp. 23–27.

1666.—Laing, F. The standing of the genus *Pemphigus* Htg. (Hem., Aphididae). Ent. mon. Mag., London **87** 1951 pp. 108–109.

1667.—Laird, M. Insects collected from aircraft in New Zealand from abroad. Zool. Publ. Vict. Univ., Wellington, N.Z. no. 11 1951 30 pp.

1668.—Lal, Rattan. Further notes on the life-history of *Empoasca kerri* var. *motti* Pruthi and on the nature and extent of injury to potato foliage. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 31–37. [Hem.]

1669.—Lallemand, V. Cinquième note sur les Cercopides. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 82–89. [Hem.]

1670.—Lallemand, V. Observations concernant *Phymatostetha perspicillaris* White et ses sous-espèces. Description de nouvelles espèces du même genre. Comment. biol., Helsingfors **12** 1951 no. 12 pp. 1–5. [Hem.]

1671.—Lallemand, V. & **Synave,** H. Homoptera. Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 77 1951 pp. 8–29, 9 figs.

La Masne, G. *see* Glaçon & La Masne.

1672.—Lamb, K. P. A new species of gall midge (Cecidomyidae) from *Hebe salicifolia* Forst. leaf galls. Trans. roy. Soc. N.Z., Dunedin **79** 1951 pp. 210–212, 3 figs. [Dipt.]

1673.—Lambert, R. Etudes des organes sexuels des papillons comme caractère taxonomique complémentaire. Ann. ACFAS, Montreal **17** 1951 pp. 150–154. [Lep.]

1674.—Lambrecht, F. L. & **Leleup,** N. Note concernant la variabilité d'*Anopheles* (*Pyretophorus*) *christyi* Newstead et Carter. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 328–332, 1 pl. 3 figs. [Dipt.]

1675.—Lane, F. Cerambicídeos neotrópicos II. Sôbre a posição sistemática de alguns gêneros. Arq. Zool., São Paulo **7** 1951 pp. 363–377, 2 pls. [Col.]

1676.—Lane, J. Neotropical *Epicypta* (Diptera, Nemocera, Mycetophilidae). Dusenia, Curitiba **2** 1951 pp. 327–340, 12 figs.

1677.—Lane, J. Synonymy of Neotropical Culicidae (Diptera). Proc. ent. Soc. Washington **53** 1951 pp. 333–336.

1678.—Lane, J. & **Ortiz,** I. I.—Sinonímia en *Culicoides* (Diptera, Ceratopogonidae). Rev. Sanid. Asist. soc., Caracas **15** 1950 p. 460.

1679.—Lane, J. & **Whitman,** L. The subgenus *Microculex* in Brazil (Diptera, Culicidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 341–366, 34 figs.

Lane, jr., J. E. *see* Pratt & Lane.

1680.—Laneyrie, R. Le piégeage des endogés et des pseudo-cavernicoles. Entomologiste, Paris **7** 1951 pp. 60–63.

1681.—Langhoffer, A. Fauna cavernarum Croatiae, II. Prirod. Istraž. mat.-prir. Razred., Zagreb no. 7 1915 pp. 3–22.

1682.—Lanham, U. N. The modified hind wing of *Euglossa* (Hymenoptera : Apoidea). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 181–182, 1 fig.

1683.—Lanham, U. N. Why do insects have six legs ? Science, Lancaster, Pa. **113** 1951 p. 663.

1684.—La Rivers, I. Nevada Dytiscidae (Coleoptera). Amer. Midl. Nat., Notre Dame **45** 1951 pp. 392–406.

1685.—La Rivers, I. Some fossil insects from a Nevada hot spring deposit. Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 81–85, 3 pls.

1686.—La Rivers, I. New Nevada Orthoptera records for the 1949 collecting season. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 173–180.

1687.—La Rivers, I. Two new Ambrysi from South America (Hemiptera, Naucoridae). Proc. ent. Soc. Washington **53** 1951 pp. 288–293.

1688.—Larsen, A. Guldsmede traek over Danmark. (With English summary.) Flora og Fauna, Copenhagen **56** 1950 pp. 105–124, 10 figs. [Odon.]

Larsson, G. *see* Braestrup, F. W.

1689.—Lassmann, G. W. *Psorophora* (*Janthinosoma*) *totonaci*, a new species from Mexico (Diptera, Culicidae). Proc. ent. Soc. Washington **53** 1951 pp. 284–287, 1 fig.

1690.—Latif, Abdul & **Yunus,** C. Muhammad. Food-plants of Citrus leaf-miner (*Phyllocnistis citrella* Stn.) in the Punjab. Bull. ent. Res., London **42** 1951 pp. 311–316. [Lep.]

1691.—Lattin, G. de. Ein neuer deutscher *Crambus* : *C. osthelderi* n. sp. (Lep.). Ent. Z., Frankfurt a. M. **60** 1950 pp. 73–76, 1 fig.

1692.—Lattin, G. de. Türkische Lepidopteren. I, II. Rev. Fac. Sci. Univ. Istanbul, Ankara **15B** 1950 pp. 301–331 ; **16B** 1951 pp. 45–73, 3 pls. 17 figs.

1693.—Lattin, G. de. Ueber die zoogeographischen Verhältnisse Vorderasiens. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 206–214, 7 figs.

1694.—Lattin, G. de. Ueber die Arten der Gattung *Cynaeda* Hb. (Pyralidae). Z. Lepid., Krefeld **1** 1951 pp. 65–84, 1 pl. (correction to legends **2** 1952 p. 23) 10 figs.

1695.—Lattin, G. de. Studien über die Gattung *Crambus* F. I. Ueber *Cr. myellus* Hb. und die ihm nächst verwandten Arten. Z. wien. ent. Ges., Vienna **36** 1951 pp. 89–101, 1 pl. 7 figs. [Lep.]

1696.—Laurence, B. R. On two neglected type designations in the genus *Hydrobaenus* Fries, 1830 (Dipt., Chironomidae). Ent. mon. Mag., London **87** 1951 pp. 164–165.

1697.—Laurence, B. R. The prey of some tree trunk frequenting Empididae and Dolichopodidae (Dipt.). Ent. mon. Mag., London **87** 1951 pp. 166–169.

1698.—Laurentiaux, D. Les insectes des bassins houillers du Gard et de la Loire. Ann. Paléont., Paris **36** 1950 pp. 63–84, 5 pls. 1 fig. [Fossil.]

1699.—Laurentiaux, D. Un insecte nouveau (Breyeriidae) du terrain houiller du Pas de Calais. Ann. Soc. géol. Nord, Lille **69** 1949 pp. 47–54, 1 pl. 1 fig. [Fossil.]

1700.—Laurentiaux, D. Les insectes Cacurgidae du terrain houiller du Nord de la France. Ann. Soc. géol. Nord, Lille **69** 1949 pp. 55–65, 1 pl. 3 figs. [Fossil, Orth.]

1701.—Laurentiaux, D. Description de trois nouveaux paléodictyoptères du terrain houiller du Nord de la France. Ann. Soc. géol. Nord, Lille **69** 1949 pp. 206–223, 2 pls. 3 figs. [Fossil.]

1702.—Laurentiaux, D. Les insectes houillers du Limbourg hollandais. Meded. geol. Stichting Geol. Bur. Heerlen (N.S.) no. 4 1950 pp. 13–20, 5 pls.

Lavabre, E. *see* Defromont, Lavabre & Taufflieb.

1703.—Laven, H. Crossing experiments with *Culex* strains. Evolution, Lancaster, Pa. **5** 1951 pp. 370–375, 2 figs. [Dipt.]

Laven, H. *see* Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

1704.—Lawrence, R. F. Observations on the insect trapping habit of the composite *Helichrysum cooperi* Harv. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 133–143, 2 figs.

1705.—Lawson, F. A. Structural features of the oothecae of certain

species of cockroaches (Orthoptera, Blattidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 269–285, 2 pls.

1706.—Lawson, J. W. H. The anatomy and morphology of the early stages of *Culicoides nubeculosus* Meigen (Diptera : Ceratopogonidae = Heleidae). Trans. R. ent. Soc. London **102** 1951 pp. 511–570, 1 pl. 46 figs.

1707.—Lazorko, W. Eine neue, bisher unbeachtete und schlecht gedeutete Rasse des *Carabus fabricii* Panz. (Col. Carabidae). Ent. Arb., Münich **2** 1951 pp. 183–196, 1 map.

1708.—Le Berre, J. R. Hétérogénéité biologique des populations du criquet migrateur des landes: *Locusta migratoria gallica* Rem. (phasis transiens). Rev. Zool. agric. appl., Gironde **50** 1951 pp. 57–62, 1 fig. [Orth.]

1709.—Lechanteur, F. Les *Laemophloeus* de France et de Belgique. Feuille Nat., Paris (N.S.) **5** (1950) 1951 pp. 87–92. [Col.]

1710.—Le Charles, L. Comment tuer les Zygènes. Rev. franç. Lép., Paris **13** 1951 pp. 33, 38, 55, 63. [Lep.]

1711.—Le Charles, L. La vie et les métamorphoses de *Charaxes jasius* Linné. Rev. franç. Lép., Paris **13** 1951 pp. 45–52, 4 pls. [Lep.]

1712.—Le Charles, L. La vie et les métamorphoses du *Charaxes jasius* Linné. Terre et la Vie, Paris **98** 1951 pp. 21–31, 4 pls. [Lep.]

1713.—Leclercq, J. Notes systématiques sur quelques Crabroniens (Hymenoptera Sphecidae) américains orientaux et australiens. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 31–56, 1 map.

1714.—Leclercq, J. Mise en évidence de la nature ptérinique des pigments jaunes des Hyménoptères adultes. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 64–74.

1715.—Leclercq, J. Notes sur la faune des Hautes-Fagnes en Belgique. XX. Diptera : Tabanidae. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 78–81.

1716.—Leclercq, J. Sur trois espèces de *Lestica* (*Solenius*) (Hym., Sphecidae, Crabroninae). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 169–173.

1717.—Leclercq, J. Catalogue synonymique des Crabroninae (Hym. Sphecidae) de la Belgique. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 28, 20 pp.

1718.—Leclercq, J. Contribution à l'étude des Crabroniens néotropicaux appartenant au genre *Podagritus* (Spinola, 1851) (Hymenoptera, Sphecidae). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 34, 18 pp.

1719.—Leclercq, J. Notes systématiques sur les *Anacrabro* (Packard, 1866) (Hym. Sphecidae Crabroninae). Bull. Soc. ent. France, Paris **56** 1951 pp. 61–64.

1720.—Leclercq, J. La position générique du *Crabro tabanicida* Fischer (Hym. Sphecidae). Bull. Soc. ent. France, Paris **56** 1951 pp. 105–106.

1721.—Leclercq, J. *Foxita patei* nov. sp., Crabronien nouveau du Mexique (Hym. Sphecid.). Mitt. schweiz. ent. Ges., Berne **24** 1951 p. 190.

1722.—Leclercq, J. Les *Ectemnius* (*Hypocrabro*) du groupe *auriceps* Cress. (Hym., Sphecidae, Crabronitae). Rev. franç. Ent., Paris **18** 1951 pp. 121–124.

1723.—Leclercq, J. Sur quelques *Neodasyproctus* (Arnold, 1926) nouveaux ou peu connus (Hymenoptera, Sphecidae, Crabroninae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 333–338.

1724.—Lecomte, C. L'*Hylesinus crenatus* F. en Auxois (Coleoptera Scolytidae). Rev. franç. Ent., Paris **18** 1951 pp. 116–119.

1725.—Lecomte, J. Les facteurs de l'agressivité chez l'abeille. C.R. Acad. Sci., Paris **232** 1951 pp. 1376–1378. [Hym.]

1726.—Lederer, G. Ein Beitrag zur Lebensweise und Verbreitung von *Dichonia areola* Esp. in der Umgebung von Frankfurt am Main. Ent. Z., Frankfurt a. M. **59** 1950 pp. 185–187 ; **60** pp. 8, 69–70. [Lep.]

1727.—Lederer, G. Lebensweise, Entwicklung und Massenwechsel von *Lemonia dumi* (Linné, 1761) (Lep. Lemonidae). Ent. Z., Frankfurt a. M. **60** 1950 pp. 76–80, 84–87.

1728.—Lederer, G. Ein Beitrag zur Lebensweise von *Perisomena caecigena caecigena* (Kupido, 1825) (Lep. Saturnidae). Ent. Z., Frankfurt a. M. **61** 1951 pp. 131–136, 142–144.

1729.—Lederer, G. Biologie der Nahrungsaufnahme der Imagines von *Apatura* und *Limenitis*, sowie Versuche zur Feststellung der Gustorezeption durch die Mittel- und Hinterfusstarsen dieser Lepidopteren. Z. Tierpsychol., Berlin **8** 1951 pp. 41–61.

1730.—Lederer, G. & **Leinfest,** J. Veränderungen in der Macrolepidopteren-Fauna von Digne (Basses-Alpes). Ent. Z., Frankfurt a. M. 1951 **60** pp. 187–192, 2 figs., **61** pp. 1–24, 31–32, 11 figs. 3 maps.

1731.—Ledoux, A. Recherche sur la biologie de la fourmi fileuse (*Oecophylla longinoda* Latr.). Ann. Sci. nat., Paris Zool. (11) **12** (1950) 1951 pp. 313–461, 61 figs. [Hym.]

1732.—Lee, D. L. Sandfly breeding places. Aust. J. Sci., Sydney **12** 1949 pp. 74–75. [Dipt.]

Lee, P. *see* Maryon, Lee & Shute.

1733.—Le Gare, Sister Mary Jude & **Hovanitz,** W. Genetic and ecologic analyses of wild populations in Lepidoptera. II. Color pattern variation in *Melitaea chalcedona*. Wasmann J. Biol., San Francisco **9** 1951 pp. 257–310, 17 figs.

1734.—Legay, J. M. Contribution à l'étude biométrique de la croissance des glandes séricigènes chez *Bombyx mori*. Rev. Ver à Soie, Alès **1** 1949 pp. 59–64. [Lep.]

1735.—Legay, J. M. & **Pascal,** M. De l'effet de groupe chez le ver à soie. C.R. Acad. Sci., Paris **233** 1951 pp. 445–447, 1 fig. [Lep.]

1736.—Legros, C. Les gyrins de Madagascar (Coléoptères). Nat. malgache, Tananarive **3** 1951 pp. 117–123, 8 figs.

1737.—Leiler, T. E. Bidrag till kännedomen om svenska coleopteras utbredning och levnadssätt 2. Opusc. ent., Lund **16** 1951 p. 32.

Leinfest, J. *see* Lederer & Leinfest.

1738.—Lekander, M. Skoginsekternas uppträdande i Sverige under tiden 1741–1945. [With a French summary.] Medd. Skogsforskningsinst., Stockholm **39** 1951 no. 5, 207 pp. 2 maps.

1739.—Leleup, N. & **Lips,** M. Notes descriptives complémentaires sur *Anopheles rodhaini*. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 169–172, 4 figs. [Dipt.]

Leleup, N. *see* Lambrecht & Leleup.

1740.—Le Marchand, S. Une mine inépuisable : les *Stigmella* (*Nepticula*) (Microlépidoptères, Stigmellidae). Contribution à leur étude. Rev. franç. Lépidopt., Paris **13** 1951 pp. 98–102.

1741.—Lemonde, A. & **Bernard,** R. Nutrition des larves de *Tribolium confusum* Duval. I, II. Canad. J. Zool., Ottawa **29** 1951 pp. 71–83. [Col.]

1742.—Lempke, B. J. De geografische variabiliteit van *Philudoria potatoria* L. in Nederland (Lepidoptera, Lasiocampidae). Bijdr. Dierk., Leiden **28** 1949 pp. 299–307, 1 map.

1743.—Lempke, B. J. Tien jaar trekvlinderonderzoek in Nederland. Ent. Ber., Amsterdam **13** 1951 pp. 227–232. [Lep.]

1744.—Lempke, B. J. De generieke nomenclatuur van onze Kleine Wapendragers. Ent. Ber., Amsterdam **13** 1951 pp. 262–265, 3 figs. [Lep.]

1745.—Lempke, B. J. De nomenclatuur van onze Hermelijnvlinders. Ent. Ber., Amsterdam **13** 1951 pp. 293–296, 6 figs. [Lep.]

1746.—Lempke, B. J. The generic nomenclature of the European Pygaerinae (Lep., Notodontidae). Ent. Ber., Amsterdam **13** 1951 pp. 332–333.

1747.—Lempke, B. J. Trekvlinders in 1950. Ent. Ber., Amsterdam **13** 1951 pp. 341–348, 2 figs., 355–362, 1 fig. [Lep.]

1748.—Lempke, B. J. A contribution to the genetics of *Lasiocampa quercus* L. Ent. Rec., London **63** 1951 pp. 200–203. [Lep.]

1749.—Lempke, B. J. Catalogus der Nederlandse Macrolepidoptera. Tijdschr. Ent., Amsterdam **94** 1951 pp. 227–320, 5 figs.

1750.—Lenek, O. Ueber eine Zucht von *Boarmia gemmaria* Brahm forma *rebeli* Aigner. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 121–124, 1 pl. [Lep.]

1751.—Lengerken, H. v. Zur Brutbiologie des spanischen Mondhornkäfers (*Copris hispanus* L.). Biol. Zbl., Leipzig **70** 1951 pp. 418–432, 14 figs. [Col.]

1752.—Lengerken, H. von. Zur Brutbiologie des Pappelblattrollers (*Bycticus populi* L.). Z. angew. Ent., Berlin **32** 1951 pp. 599–603, 6 figs. [Col.]

1753.—Lengerken, H. v. Der Ahornblattroller (*Deporaus tristis* F.) auch an Rotbuche ? Zool. Anz., Leipzig **146** 1951 pp. 27–30, 3 figs. [Col.]

1754.—Lengersdorf, F. Lycoriidae (Dipt.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 201–206, 12 figs. [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 195–200, 12 figs.].

1755.—Lent, H. *Triatoma longipes* Barber, 1937, um sinónimo de *Triatoma recurva* (Stål, 1868) (Hemipt., Reduv.). Ciencia, México **11** 1951 pp. 156–158, 3 figs.

1756.—Lent, H. Segunda espécie do gênero *Bolbodera* Valdés, 1910 (Hemiptera, Reduviidae, Triatominae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 153–156, 3 figs.

1757.—Lent, H. Triatominae das regiões oriental, australiana, etiópica e paleártica, com descrição de uma nova espécie (Hemiptera, Reduviidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 425–429, 3 figs.

1758.—Lent, H. Novo *Triatoma* do Estado de Minas Gerais (Brasil) (Hemiptera, Reduviidae). Rev. Ent., Rio de Janeiro **22** 1951 pp. 349–352, 3 figs.

1759.—Lent, H. & **Wygodzinsky,** P. Contribuição ao conhecimento de *Zelurus fulvomaculatus* (Berg, 1879) e sete outras espécies afins (Reduviidae, Hemiptera). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 575–594, 20 figs.

1760.—Lent, H. & **Wygodzinsky,** P. Estudos sôbre o gênero *Zelurus* Hahn (Reduviidae, Hemiptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 1–28, 43 figs.

1761.—Lent, H. & **Wygodzinsky,** P. Espécies do gênero *Zelurus* Hahn (Hemiptera, Reduviidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 173–179, 14 figs.

1762.—Lenz, F. Probleme der Chironomiden-Forschung. Congr. int. Limnol., Stuttgart **11** 1951 pp. 230–245. [Dipt.]

1763.—Lenz, F. Die halobionten Jugendstadien der Chironomidengattung *Halliella* Kieff. Dtsch. zool. Z., Hanover & Berlin **1** 1950 pp. 3–14, 11 figs. [Dipt.]

1764.—Lenz, F. Mittelbare Geschlechter-Findung bei Dipteren. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 285–289.

1765.—Lenz, F. Die Metamorphose einer tropischen *Pelopia*-Art. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 502-515, 10 figs. [Dipt.]

1766.—Lenz, F. Neue Beobachtungen zur Biologie der Jugendstadien der Tendipedidengattung *Parachironomus* Lenz. Zool. Anz., Leipzig **147** 1951 pp. 95–111, 10 figs. [Dipt.]

1767.—Lepesme, P. & **Breuning,** S. Cerambycides nouveaux récoltés par R. Paulian et Cl. Delamare dans la réserve forestière du Banco (Côte d'Ivoire) (Août-Octobre 1945). Rev. franç. Ent., Paris **18** 1951 pp. 36–38.

1768.—[Lepneva, S. G.] Contribution to the question of the ecological classification of Trichoptera of flowing waters. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 252–265.

1769.—Leportois, M. Croissance pondérale et durée d'intermue chez *Carausius morosus*, Br. Growth,

Philadelphia **14** 1950 pp. 1–5. [Orth.]

Lerma *see* De Lerma.

1770.—Leslie, P. H. & **Park,** T. The instrinsic rate of natural increase of *Tribolium castaneum* Herbst. Ecology, Lancaster, Pa. **30** 1949 pp. 469–477. [Col.]

1771.—Lesse, H. de. Expéditions polaires françaises (Missions Paul-Émile Victor) Zoologie—4e note Macrolepidoptera. Ann. Soc. ent. France, Paris **118** 1951 pp. 51–77, 38 figs.

1772.—Lesse, H. de. Sur une espèce de Satyridae mal connue: *Hipparchia* (*Pseudotergumia*) *wyssii* Christ. Bull. Soc. ent. France, Paris **56** 1951 pp. 50–53, 1 fig. [Lep.]

1773.—Lesse, H. de. Sur la répartition de *Boloria graeca* (Stgr.) dans les Alpes françaises. Bull. Soc. linn. Lyon **20** 1951 pp. 125–126. [Lep.]

1774.—Lesse, H. de. Etude biométrique des formes d'*Erebia epiphron* (Knoch), des Vosges, d'Auvergne et des Pyrénées. Rev. franç. Lép., Paris **13** 1951 pp. 3–9, 1 fig. [Lep.]

1775.—Lesse, H. de. Divisions génériques et sub-génériques des anciens genres *Satyrus* et *Eumenis* (sensu lato). Rev. franç. Lép., Paris **13** 1951 pp. 39–42. [Lep.]

1776.—Lesse, H. de. Contribution à l'étude du genre *Erebia* (3e et 4e notes). Vie et Milieu, Paris **2** 1951 pp. 95–123, 2 pls. 1 map, 267–277, 45 figs. [Lep.]

1777.—Lesse, H. de. Note complémentaire sur la répartition de *Erebia tyndarus* Esp. et *E. cassioides* Reiner et Hohenwarth (Lép. Rhopal.) dans les Pyrénées (5e note). Vie et Milieu, Paris **2** 1951 pp. 388–391.

1778.—Lesse, H. de, **Strenzke,** R. & **Thienemann,** A. Expéditions polaires françaises (Missions P. E. Victor). Zoologie—5e note. Bull. Soc. ent. France, Paris **56** 1951 pp. 53–61, 1 fig. [Dipt.]

Lesse, H. de *see* Bernardi & Lesse.

1779.—Leston, D. Notes on the British Heteroptera II. Ent. Gaz., London **2** 1951 pp. 255–257, 2 figs.

1780.—Leston, D. Alary dimorphism in *Nabis apterus* F. (Hem., Nabidae) and *Coranus subapterus* Deg. (Hem., Reduviidae). Ent. mon. Mag., London **87** 1951 pp. 242–244.

1781.—Levenbook, L. The physiology of Dipterous larvae. Abstr. Diss. Univ. Cambridge **1949-50** 1951 pp. 70–71.

1782.—Levenbook, L. The variation in fat and glycogen content of the bot fly (*Gastrophilus intestinalis*) larval tracheal organ during development. J. exp. Biol., London **28** 1951 pp. 173–180, 2 figs. [Dipt.]

1783.—Levenbook, L. The effect of carbon dioxide and certain respiratory inhibitors on the respiration of larvae of the horse bot fly (*Gastrophilus intestinalis* De Geer). J. exp. Biol., London **28** 1951 pp. 181–202, 3 figs. [Dipt.]

Levene, H. *see* Dobzhansky & Levene.

1784.—Lever, J. & **Sobels,** F. H. Some remarks on the occurrence of the genus *Drosophila* in the Netherlands. Proc. Kon. ned. Akad. Wet. Amsterdam (C) **54** 1951 pp. 84–88, 1 map. [Dipt.]

1785.—Leví Castillo, R. Nota taxonómica sobre la especie ecuatoriana *Aedes* (*Ochlerotatus*) *camposanus* Dyar 1918 (Dipt. Culicidae). Rev. Ent., Rio de Janeiro **22** 1951 pp. 383–388, 2 figs.

1786.—Leví Castillo, R. Estudio taxonómico sobre los principales vectores de la fiebre amarilla selvática en América del Sur. I—Terminalias masculinas de los mosquitos *Haemagogus*. Rev. Kuba Med. trop. Parasit., Havana **7** 1951 pp. 13–16, 16 figs. [Dipt.]

1787.—Leví Castillo, R. Notas sobre la dispersión del género *Haemagogus* en América del Sur y su importancia en la epidemiología de la fiebre amarilla selvática. Rev. San. Hig. publ., Madrid **25** 1951 pp. 213–221, 3 figs.

1788.—Leví Castillo, R. Estudio taxonómico sobre los anofelinos de América del Sud. Riv. Malariol., Rome **30** 1951 pp. 75–80. [Dipt.]

1789.—Levin, M. D. & **Haydak,** M. H. Seasonal variation in weight and ovarian development in the worker honeybee. J. econ. Ent., Menasha **44** 1951 pp. 54–57. [Hym.]

Levine, L. *see* Rockstein & Levine.

1790.—Levitan, M. Selective differences between males and females in *Drosophila robusta*. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 385–388. [Dipt.]

1791.—Levitan, M. Experiments on chromosomal variability in *Drosophila robusta*. Genetics, New York **36** 1951 pp. 285–305. [Dipt.]

1792.—Lewis, D. J. & **Kirk,** R. The sandflies (Phlebotominae) of the Anglo-Egyptian Sudan. Bull. ent. Res., London **41** 1951 pp. 563–575, 17 figs. [Dipt.]

Lewis, D. J. *see* Kirk & Lewis.

1793.—Leyon, H. & **Eklund,** G. Some electron microscopical observations on the structure of the wings of *Simulium*. Ark. Zool., Stockholm (N.S.) **1** 1951 pp. 471–476, 5 figs. [Dipt.]

1794.—L'Hélias, C. Expériences de ligatures chez la larve d'*Apis mellifica*. C.R. Soc. Biol., Paris **145** 1951 pp. 233–234. [Hym.]

1795.—Lhoste, J. Etude cytologique et histochimique du tissu adipeux de l'imago de *Forficula auricularia* L. Ann. Sci. nat., Paris Zool. (11) **12** (1950) 1951 pp. 471–484, 6 figs. [Dermapt.]

1796.—Lhoste, J. Les modifications de structure des glandes ventrales chez *Forficula auricularia* L. au cours du développement. Bull. Soc. zool. France, Paris **75** (1950) 1951 pp. 285–292, 3 figs. [Dermapt.]

1797.—Lhoste, J. Sur la présence de ganglions épipharyngiens chez *Forficula auricularia* L. C.R. Acad. Sci., Paris **232** 1951 pp. 264–266, 2 figs. [Dermapt.]

Liao, T. H. *see* Liu, Yang & Liao.

1798.—Liebermann, J. Una nueva especie de *Sinipta* Stål, de Bolivia, con algunas observaciones acerca de la ubicación del género dentro de la subfamilia Acridinae (Orth. Coelifera, Acrid. Acrid.). An. Soc. ci. Argent., Santa Fe **152** 1951 pp. 3–17, 10 figs.

1799.—Liebermann, J. Tres notas ortopterológicas sudamericanas. Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 121–140, 5 figs.

1800.—Liebke, M. Carabidae truncatipennae (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 223–275, 14 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 215–266, 14 figs.].

1801.—Lieftinck, M. A. Results of the Archbold Expeditions. No. 64. Odonata of the 1948 Archbold Cape York Expedition, with a list of the dragonflies from the Peninsula. Amer. Mus. Novit., New York no. 1488 1951 46 pp. 15 figs.

1802.—Lieftinck, M. A. Enkele notities over het Over-ass von Nieuw Guinea (Ephem., Palingeniidae). Bijdr. Dierk., Leiden **28** 1949 pp. 308–314, 1 fig. 1 map.

1803.—Lieftinck, M. A. Notes on Malaysian *Prodasineura* with descriptions of two new species from Borneo and a key to the blue-coloured species (Odon., Protoneuridae). Idea, Bogor **8** 1951 pp. 74–83, 16 figs.

1804.—Lieftinck, M. A. The identity of some Malaysian species of *Ceriagrion*, with descriptions of two new species (Odon.). Treubia, Bogor **21** 1951 pp. 183–197, 4 figs.

Lienk, S. E. *see* Sailer & Lienk.

1805.—Light, S. F. & **Weesner,** F. M. Further studies on the production of supplementary reproductives in *Zootermopsis* (Isoptera). J. exp. Zool., Philadelphia **117** 1951 pp. 397–414.

1806.—[Likventov, A. V.] The day-and-night and seasonal changes in the temperature preferendum of the beetles *Pseudophonus pubescens* Müll. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 208–215, 4 figs. [Col.]

1807.—Lima-de-Faria, A. Genetics, origin and evolution of kinetochores. Hereditas, Lund **35** 1949 pp. 422–444.

Lima *see* Costa Lima.

1808.—Lindauer, M. Bienentänze in der Schwarmtraube. Naturwissenschaften, Berlin **38** 1951 pp. 509–513, 3 figs. [Hym.]

1809.—Lindberg, H. Beitrag zur Kenntnis der Käferfauna der Kanarischen Inseln. Comment. biol., Helsingfors **10** 1950 no. 18 pp. 1–20, 6 figs. [Col.]

1810.—Lindberg, H. *Canariocoris*, eine neue kanarische Miridengattung. Comment. biol., Helsingfors **12** 1951 no. 9 pp. 1–12, 9 figs. [Hem.]

1811.—Lindberg, H. Verzeichnis der Typen in O. M. Reuters paläarktischen Heteropterensammlung. Comment. biol., Helsingfors **12** 1951 no. 14 pp. 1–34. [Hem.]

1812.—Lindberg, H. Nordlige och sydliga element i kustvattnens insektfauna. Skärgårdsboken, Helsingfors, Nordenskiöld - Samfundet 1948 pp. 471–481, 9 figs.

1813.—Lindner, E. Stratiomyiiden (Dipt.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 177–188, 5 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 172–183, 5 figs.].

1814.—Lindner, E. Ueber einige südchinesische Stratiomyiiden (Dipt.). Bonn. zool. Beitr. **2** 1951 pp. 185–189, 1 fig.

1815.—Lindner, E. Vierter Beitrag zur Kenntnis der suedamerikanischen Stratiomyiidenfauna (Dipt.). Rev. Ent., Rio de Janeiro **22** 1951 pp. 245–264, 9 figs.

1816.—Lindquist, A. W., **Yates,** W. W. & **Hoffman,** R. A. Studies of the flight habits of three species of flies tagged with radioactive phosphorus. J. econ. Ent., Menasha **44** 1951 pp. 397–400. [Dipt.]

Lindquist, A. W. *see* Hoffman, Lindquist & Butts.

1817.—Linnavuori, R. Hemipterological observations. Ann. ent. fenn., Helsinki **17** 1951 pp. 51–65, 10 figs.

1818.—Linnavuori, R. Studies on the family Cryptostemmatidae. Ann. ent. fenn., Helsinki **17** 1951 pp. 92–103, 8 figs. [Hem.]

1819.—Linnavuori, R. On some new or lesser-known Heteroptera. Ann. ent. fenn., Helsinki **17** 1951 pp. 104–108, 5 figs.

1820.—Linsenmaier, W. Die europäischen Chrysididen (Hymenoptera). Versuch einer natürlichen Ordnung mit Diagnosen. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 1–110, 13 figs.

1821.—Linsley, E. G. & **MacSwain,** J. W. The Rhipiphoridae of California (Coleoptera). Bull. Calif. Ins. Surv., Berkeley & Los Angeles **1** 1951 pp. 79–86, 1 pl.

1822.—Linsley, E. G. & **MacSwain,** J. W. Notes on the biology of *Tricrania stansburyi* Haldeman (Coleoptera, Meloidae). Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 92–95, 1 pl.

Lips, M. *see* Leleup & Lips.

Lith *see* Van Lith.

1823.—Liu, C. Y. & **Ho,** Y. C. Studies on June beetles (Scarabaeidae) with special reference to the methods of control. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 263–279, 1 pl. [Col.]

1824.—Liu, C. L., **Yang,** C. K. & **Liao,** T. H. The external morphology of *Chilocorus rubidus* Hope a. *tristis* Faldermann (Coccinellidae, Coleoptera). [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1950 pp. 164–185, 37 figs.

1825.—Llano, R. J. Primera lista de los lepidópteros de Bolivar (Provincia de Buenos Aires—Republica Argentina) y generalidades. Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 182–186.

1826.—Lloyd, D. C. A survey for grasshopper parasites in temperate South America. Canad. Ent., Ottawa **83** 1951 pp. 213–230, 2 pls. 2 figs.

1827.—[Lobashev, M. E. & **Nikitina,** I. A.] The adaptation of silkworms to temporary associations. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **79** 1951 pp. 1057–1059. [Lep.]

1828.—Löberbauer, R. *Rhyacia margaritacea* Vill., ihre Biologie und ihre Variationsbreite. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 128–130. [Lep.]

1829.—Löberbauer, R. *Rhyacia subrosea* Steph. v. *kieferi* Rbl. in Oberösterreich, ein bemerkenswerter Neufund. Z. wien. ent. Ges., Vienna **36** 1951 pp. 81–83. [Lep.]

Loebel, F. *see* Sieder & Loebel.

Loh *see* Sing Yuan Loh.

1830.—Løken, A. Bumble bees in relation to *Aconitum septentrionale* in central Norway (Øyer). Nytt Mag. Naturv., Oslo **87** 1949 pp. 1–60, 10 figs. [Hym.]

Longanecker, D. S. *see* Holdenried, Evans & Longanecker.

1831.—Longfield, C. A new African *Microgomphus* and notes on some Asiatic types (Odonata). Ent. News, Lancaster, Pa. **62** 1951 pp. 97–102, 6 figs.

1832.—Longfield, C. "The dragonflies of the British Isles, 1949." Addenda. Entomologist, London **84** 1951 pp. 83–84. [Odon.]

Lopes *see* Souza Lopes.

Löpmann, A. *see* Eichler, Löpmann & Pagast.

1833.—Loritz, J. Supplementary remarks on *Erebia* in the French Hautes Alpes and Alpes Maritimes. Entomologist, London **84** 1951 pp. 230–231. [Lep.]

1834.—Lorković, Z. Neue ostasiatische Arten und Rassen der Gattung *Leptidea* nebst Nomenklaturberichtigungen. Glasn. Hrv. priridosl. Društvo, Zagreb (2B) **2-3** (1948–49) 1950 pp. 57–76, 2 pls. [Lep.]

1835.—Lotmar, R. Die Wirkung von Ultraschall auf verschiedene Entwicklungsstadien von *Drosophila melanogaster.* Rev. suisse Zool., Geneva **58** 1951 p. 519. [Dipt.]

1836.—Louis, P. Die Ameisen und wir. Myrmekologische Plauderei. Mitt. naturf. Ges. Bern (N.F.) **8** 1951 pp. XIII–XIV. [Hym.]

1837.—Louwerens, C. J. New Carabidae from the Malay Archipelago. Treubia, Bogor **21** 1951 pp. 117–132, 5 figs. [Col.]

1838.—Lower, H. F. The evolution of the radio-medial area in the wings of Muscoidea Acalyptrata (Diptera). Proc. Linn. Soc. New South Wales, Sydney **76** 1951 pp. 71–82, 30 figs.

Lu, Kiao-Hung *see* Bodine & Lu.

Lucca *see* De Lucca.

1839.—Luce, W. M., **Quastler,** H. & **Chase,** H. B. Reduction in facet number in bar-eyed *Drosophila* by x-rays. Genetics, Lancaster, Pa. **36** 1951 pp. 488–499, 2 figs. [Dipt.]

1840.—Lüdtke, H. Ueber retinomotorische Erscheinungen im Insektenauge. Naturwissenschaften, Berlin **38** 1951 pp. 285–286, 3 figs.

1841.—Ludwig, D. Composition of the blood of Japanese beetle (*Popillia japonica* Newman) larvae. Physiol. Zool., Chicago **24** 1951 pp. 329–334. [Col.]

Ludwig, W. *see* Hellwig & Ludwig.

1842.—Ludwin, I. Natural selection in *Drosophila melanogaster* under laboratory conditions. Evolution, Lancaster, Pa. **5** 1951 pp. 231–242. [Dipt.]

1843.—Lüers, H. Ueber genetische Versuche mit Kontaktinsektiziden an *Drosophila.* Moderne Biol., Festschr. 60. Geburtst. Nachtsheim, Berlin 1950 pp. 198–204. [Dipt.]

1844.—Luh, Chin-jên. A key to the families of the Lepidopterous larvae. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 321–340, 11 figs.

Luh, Chin-jên *see* Woo, Kuan & Luh.

1845.—Luh, P. L. & **Hwang,** K. H. The external morphology of the mole-cricket, *Gryllotalpa africana* de Beauvois (Orthoptera : Gryllotalpidae). I. The head and feeding mechanism. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 308–320, 17 figs.

Lumsden, W. H. R. *see* Haddow, van Someren, Lumsden, Harper & Gillett.

1846.—Luna de Carvalho, E. Notas sobre Carabídeos da Guiné Portuguesa (Paussidae e Scaritidae). An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 129–142, 8 figs. [Col.]

1847.—Luna de Carvalho, E. Alguns Coleópteros Carabídeos de Moçambique. An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 137–144, 3 figs.

1848.—Luna de Carvalho, E. Contribuições para o inventário da fauna lusitânica. Insecta. Aditamento ao inventário dos Coleópteros do Dr. A. F. de Seabra. Mem. Estud. Mus. zool. Coimbra no. 203 1951 24 pp.

1849.—Luna de Carvalho, E. Contribution pour un nouveau catalogue de la famille des Paussides (Col. Carab. Isochaeta). Mem. Estud. Mus. zool. Coimbra no. 207 1951 51 pp. 2 pls. 1 fig.

1850.—Lundbeck, J. Zur Kenntnis der Lebensverhältnisse in sauren Binnenseen. Arch. Hydrobiol., Stuttgart Suppl. **20** 1951 pp. 18–117, 9 pls. 6 figs.

1851.—Lüning, K. G. Mustard gas and gynandromorph production in *Drosophila melanogaster*. Hereditas, Lund **37** 1951 pp. 488–500, 2 figs. [Dipt.]

Lüning, K. G. *see* Bonnier & Lüning.

1852.—Lüscher, M. Beobachtungen über die Koloniegründung bei verschiedenen afrikanischen Termitenarten. Acta trop., Basle **8** 1951 pp. 36–43, 3 figs. [Isopt.]

1853.—Lüscher, M. Ueber die Determination der Ersatzgeschlechtstiere bei der Termite *Kalotermes flavicollis* Fabr. (Vorläufige Mitteilung). Rev. suisse Zool., Geneva **58** 1951 pp. 404–408. [Isopt.]

Lush, J. L. *see* Polhemus, Lush & Rothenbuhler.

1854.—Ma, S. Y. Ueber die Entwicklung der Flügelform bei Mutanten und Hitzemodifikationen von *Drosophila*. Nachr. Akad. Wiss. Göttingen math.-phys. Kl. biol.-phys.-chem. Abt. **1950** 1950 pp. 11–20, 2 figs. [Dipt.]

1855.—McAlpine, J. F. A review of the North American species of *Herina* Robineau-Desvoidy (= *Tephronota* Loew) (Diptera : Otitidae). Canad. Ent., Ottawa **83** 1951 pp. 308–314, 4 figs.

1856.—Macan, T. T. The taxonomy of the British species of Siphlonuridae (Ephem.). Hydrobiologia, The Hague **3** 1951 pp. 84–92, 5 figs.

1857.—McArthur, J. The importance of Borneo *Anopheles*. A study of the relative importance of the different species of Borneo *Anopheles*, from records of 24,000 dissections and other evidence, by observers throughout North Borneo and Labuan, Sarawak, Brunei and Dutch Borneo, 1914–49. Indian J. Malariol., Calcutta **4** 1950 pp. 391–447, 2 figs.

1858.—MacArthur, K. The louse flies of Wisconsin and adjacent States (Diptera, Hippoboscidae). Bull. publ. Mus. Milwaukee **8** 1948 pp. 367–440, 1 pl. 28 figs.

1859.—McCleskey, O. L. The bionomics of the Culicidae of the Dallas area. Field & Lab., Dallas **19** 1951 pp. 5–14. [Dipt.]

McDermott, F. A. *see* Barber, H. S.

McDonald, H. *see* Fuller, Spinks, Arnason & McDonald.

1860.—McDunnough, J. H. On the identity of two eastern North American *Hydriomena* species (Lepidoptera, Geometridae). Amer. Mus. Novit., New York no. 1535 1951 13 pp. 5 figs.

1861.—McElroy, W. D. & **Harvey,** E. N. Differences among species in the response of firefly extracts to adenosine triphosphate. J. cell. comp. Physiol., Philadelphia **37** 1951 pp. 83–89. [Col.]

1862.—McElvare, R. R. New Heliothid moth from northern California. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 71–72, 2 figs. [Lep.]

1863.—MacFadyen, A. A simple device for recording mean temperatures in confined spaces. Année biol., Paris **55** 1951 pp. 325–327, 1 fig.

1864.—McFarlane, A. G. A note on the genus *Neurochorema* Till. : and the addition of a species thereto. Rec. Canterbury (N.Z.) Mus., Christchurch **5** 1951 pp. 253–254. [Trichopt.]

1865.—McFarlane, A. G. Additions to the New Zealand Rhyacophilidae. Part 2. Rec. Canterbury (N.Z.) Mus., Christchurch **5** 1951 pp. 255–265, 8 pls. [Trichopt.]

1866.—McFarlane, A. G. Caddis fly larvae (Trichoptera) of the family Rhyacophilidae. Morphology and

description of species. Rec. Canterbury (N.Z.) Mus., Christchurch **5** 1951 pp. 267–289, 12 pls. 5 figs.

1867.—MacKay, M. R. Species of *Eupithecia* reared in the forest insect survey in British Columbia (Lepidoptera : Geometridae). Canad. Ent., Ottawa **83** 1951 pp. 77–91, 4 pls.

1868.—MacKay, M. R. Descriptions of larvae of several species of the genus *Zale* (Lepidoptera : Phalaenidae). Canad. Ent., Ottawa **83** 1951 pp. 245–261, 9 pls.

1869.—Mackensen, O. Viability and sex determination in the honey bee (*Apis mellifera* L.). Genetics, Lancaster, Pa. **36** 1951 pp. 500–509. [Hym.]

1870.—McKenzie, H. L. Miscellaneous Diaspidid scale studies (Homoptera ; Coccoidea ; Diaspididae). Scale studies—part VII. Bull. Dep. Agric. California, Sacramento **40** 1951 pp. 80–82, 1 fig.

1871.—McKeown, K. C. Field notes on some insects of the Mount Kosciusko area. Aust. Zool., Sydney **11** 1951 pp. 333–337, 1 pl.

1872.—McKeown, K. C. Australian Cerambycidae. VIII. Notes on a collection from the Western Australian Museum, with descriptions of new species. Rec. Aust. Mus., Sydney **22** 1948 pp. 49–63.

1873.—McKeown, K. C. A reference list of types of Coleoptera in the Australian Museum. Rec. Aust. Mus., Sydney **22** 1948 pp. 95–139.

1874.—Mackerras, I. M. Marine insects. Proc. roy. Soc. Queensland, Brisbane **61** (1949) 1950 pp. 19–29.

1875.—McKey-Fender, D. A new *Cantharis* (Cantharidae, Coleoptera). Amer. Midl. Nat., Notre Dame **46** 1951 pp. 630–633, 10 figs.

McKinnon, A. *see* Day & McKinnon.

McLaren, B. A. *see* Sieburth, Bonsall & McLaren.

1876.—McLeod, J. H. Biological control investigations in British Columbia. Proc. ent. Soc. Br. Columbia, Victoria **47** (1950) 1951 pp. 27–36.

1877.—McMahon, J. P. The discovery of the early stages of *Simulium neavei* in phoretic association with crabs and a description of the pupa and the male. Bull. ent. Res., London **42** 1951 pp. 419–426, 4 figs. [Dipt.]

1878.—MacNeill, N. Dragonflies—a key to the nymphs of the Coenagriidae common in Ireland (Odonata. Zygoptera). Irish Nat. J., Belfast **10** 1950 pp. 32–38, 1 pl.

1879.—MacNeill, N. Odonata. Irish distribution. Irish Nat. J., Belfast **10** 1951 pp. 211–212.

MacNeill, N. *see* Gardner & MacNeill.

1880.—MacSwain, J. W. A new genus of Meloidae from North America. Pan-Pacif. Ent., San Francisco **27** 1951 p. 58. [Col.]

1881.—MacSwain, J. W. New North American species of *Nemognatha* and *Zonitis* (Coleoptera, Meloidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 72–80.

MacSwain, J. W. *see* Linsley & MacSwain.

1882.—Mader, L. Die Erotyliden von Peru (Col.). Ent. Arb., Münich **2** 1951 pp. 197–225.

1883.—Mader, L. Die *Blaps*-Arten von Niederösterreich. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 151–153. [Col.]

1884.—Maessen, T. How I kept my butterfly collection in tropical West-Africa. Ent. Ber., Amsterdam **13** 1951 pp. 379–380. [Lep.]

1885.—Magrini, M. Osservazioni sulla struttura dei cromosomi giganti degli *Anopheles*. Monit. zool. ital., Florence **59** 1951 Suppl. pp. 228–230. [Dipt.]

1886.—Mahdihassan, S. The role of symbiosis in the genus *Coriococcus*, Coccidae. Z. angew. Ent., Berlin **33** 1951 pp. 108–110, 1 col. pl. [Hem.]

1887.—Mainx, F. Die Verbreitung von Chromosomendislokationen in natürlichen Populationen von *Liriomyza urophorina* Mik. Chromosoma, Vienna **4** 1951 pp. 521–534, 1 pl. 2 figs. [Dipt.]

1888.—[Makhotin, A. A.] Indices de la sensibilité à la chaleur dans la

comportement d'*Eurygaster integriceps*. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 120–126, 2 figs. [Hem.]

1889.—[**Makhotin,** A. A.] Régime thermique des champs et comportement d'*Eurygaster integriceps*. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 127–135, 2 figs. [Hem.]

1890.—[**Makhotin,** A. A.] Matériaux pour l'étude du développement d'*Eurygaster integriceps*. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 19–48, 14 figs. [Hem.]

Malek *see* Abdel Malek.

1891.—**Malies,** H. M. Hints on photomicrography for the entomologist. Microscope, London **7** 1950 pp. 291–294, 313–317, 5 figs.

1892.—**Malogolowkin,** C. Drosofilídeos colhidos na Bahia, com descrição de uma espécie nova (Diptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 431–434, 3 figs.

Malogolowkin, C. *see* Pavan, Cordeiro & others.

1893.—**Mañana,** A. M. Técnica para la coloracíon de los huevos de culícidos. Laboratorio, Granada **7** 1947 pp. 133–135. [Dipt.]

1894.—**Mancini,** O. Emitteri Eterotteri del Veronese. Mem. Mus. Stor. nat. Verona **2** (1949–50) [?1951] pp. 25–48.

1895.—**Mandl,** K. Cicindelidae. Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 211–221 [all but 6 copies destroyed in the War ; re-issued as Bd. 2 1951 pp. 204–214]. [Col.]

1896.—**Mani,** M. S. & **Rao,** S. N. A remarkable example of maternal solicitude in a thrips in India. Current Sci., Bangalore **19** 1950 p. 217, 1 fig. [Thysanopt.]

1897.—**Manna,** G. K. Multiple sex-chromosome mechanism in a reduvid bug, *Conorhinus rubrofasciatus* (de Geer). Proc. Zool. Soc. Bengal, Calcutta **3** 1950 pp. 155–161, 13 figs. [Hem.]

Manna, G. K. *see* Ray-Chaudhuri & Manna.

1898.—**Mannheims,** B. Zur Synonymie der europäischen Tipuliden (Dipt.) I. II. Bonn. zool. Beitr. **2** 1951 pp. 139–140, 228.

1899.—**Mannheims,** B. Die *Tipula-oleracea*-Gruppe in Europa, ein Beispiel für Formenkreis-Parallelismus (Dipt., Tipulidae). Syllegomena biol. (Festschr. 80. Geburtst. O. Kleinschmidt), Leipzig 1950 pp. 231–247, 76 figs.

1900.—**Manning,** F. J. Sex-determination in the honey bee. Microscope, London **7** pp. 175–180, 209–211 (1949), 237–241, 259, 303–305, 329–330 (1950), 10 figs. [Hym.]

1901.—**Manville,** R. H. A small island community in midsummer. Ecology, Lancaster, Pa. **32** 1951 pp. 608–617, 4 figs.

1902.—**Maramorosch,** K. Handy insect-vector cage. J. New York ent. Soc. **59** 1951 pp. 49–50, 1 fig.

1903.—**Marcuzzi,** G. Problemi inerenti al popolamento animale della selva pluviale in Venezuela. Arch. zool. (ital.), Turin **35** 1950 pp. 297–324, 2 figs.

1904.—**Marcuzzi,** G. Contributi alla conoscenza dei Tenebrionidi venezuelani (Coleoptera). Atti Mus. Stor. nat. Trieste **18** 1951 pp. 61–80, 1 pl. 9 figs. [Col.]

1905.—**Marcuzzi,** G. I Tenebrionidi come indicatori del clima. Riv. Biol., Perugia (N.S.) **43** 1951 pp. 399–437, 7 figs. [Col.]

1906.—**Marié,** P. Piégage des insectes commensaux de la marmotte des Alpes. Entomologiste, Paris **7** 1951 pp. 79–83.

1907.—**Marino,** M. T. P. La distribuzione geografica dei *Chrysops* S.L. (Diptera Tabanidae) in Italia e regioni contermini e appunti biologici. Redia, Florence **34** 1949 pp. 313–337, 8 maps, 1 fldg. table, 9 figs.

1908.—**Marino,** M. T. P. I Pangonini (Diptera Tabanidae) italiani e

loro rapporti con la fauna paleartica. Redia, Florence **36** 1951 pp. 277–290, 5 figs. 1 fldg. table 4 maps.

1909.—Marks, E. N. The vector of filariasis in Polynesia : a change in nomenclature. Ann. trop. Med. Parasit., Liverpool **45** 1951 pp. 137–140. [Dipt.]

1910.—Marks, E. N. Mosquitoes from Southeastern Polynesia. Occ. Pap. Bishop Mus., Honolulu **20** 1951 pp. 123–130, 1 fig. [Dipt.]

1911.—Marks, E. P. Comparative studies of the male genitalia of the Hemiptera (Homoptera-Heteroptera). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 134–141, 3 pls.

1912.—Marlier, G. La biologie d'un ruisseau de plaine. Le smohain. Mém. Inst. R. Sci. nat. Belg., Brussels no. 114 1951 98 pp. 7 graphs.

1913.—Marlier, G. Quatre espèces nouvelles de *Chimarrha* africaines (Trichoptera). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 180–188, 6 figs.

1914.—Marshall, Sir G. A. K. New Curculionidae from tropical Africa. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 833–848. [Col.]

1915.—Marshall, Sir G. A. K. New Curculionidae (Col.) from French West Africa. Bull. Inst. franç. Afrique noire, Dakar **13** 1951 pp. 319–325.

1917.—Marshall, Sir G. A. K. Résultats de la Mission Zoologique Suisse au Cameroun. Curculionides et Anthribides. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 p. 231. [Col.]

1918.—Marshall, Sir G. A. K. On a new Japanese *Rhynchaenus* (Col. Curc.). Mushi, Fukuoka **22** 1951 p. 87.

1919.—Marshall, M. Y. Studies in the Malachiidae. III. Proc. Calif. Acad. Sci., San Francisco (4) **27** 1951 pp. 77–132. [Col.]

1920.—Martelli, M. Contributi alla conoscenza dell' entomofauna del Granoturco (*Zea mays* L.). II. Aphidoidea. Redia, Florence **35** 1950 pp. 257–380, 26 figs.

1921.—Martin, C. H. The lectotype and allotype of *Holopogon snowi* Back (Diptera : Asilidae). J. Kans. ent. Soc., Manhattan **24** 1951 pp. 35–36.

1922.—Martínez, A. Notas coleopterológicas V. An. Soc. cient. argent., Buenos Aires **152** 1951 pp. 138–142. [Col.]

1923.—Martínez, A. Scarabaeinae nuevos o poco conocidos I, II. Misión Estud. Pat. reg. argent., Buenos Aires 1951 **22** no. 79 pp. 31–40, 3 figs., no. 80 pp. 23–36, 13 figs. [Col.]

1924.—Martínez, A. Insectos nuevos o poco conocidos. VIII. (Col. Scarabaeidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 108–120, 3 figs.

1925.—Martínez, A. & **Prosen,** A. F. Algunos mosquitos de General Belgrano en Misiones. Misión Estud. Pat. reg. argent., Buenos Aires **22** 1951 no. 80 pp. 37–43.

Martínez, A. *see* Prosen & Martínez.

1926.—[Martuinova, E. F.] On the structure of the larvae of *Micropteryx* (Lepidoptera, Micropterygidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 142–150, 9 figs.

1927.—[Martuinova, O. M.] Two new liassic species of insects from Kizil-kiya (Kirghiz SSR). [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **78** 1951 pp. 1009–1011, 2 figs. [Fossil.]

1928.—[Martuinova, O. M.] The site of permian insects near the village Sokolova in the Kuznetzk basin. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **79** 1951 pp. 149–151. [Fossil.]

1929.—Maryon, M., **Lee,** P. & **Shute,** P. G. Experimental hybridization of *Anopheles maculipennis* var. *atroparvus* Meigen and *Anopheles quadrimaculatus* Say. Proc. R. ent. Soc. London (A) **26** 1951 pp. 109–111. [Dipt.]

1930.—Mashhood Alam, S. On Indian insect types. The skeleto-muscular mechanism of *Stenobracon deesae* Cameron (Brac. Hymenoptera)—an ectoparasite of sugarcane and juar borers of India. Part I. Head and thorax. Aligarh Muslim Univ. Publ. (Zool. Ser.) no. 3 [1951] 74 pp. 10 pls.

1931.—Masi, L. Missione biologica Sagan-Omo diretta dal Prof. Edoardo Zavattari (1939), Hymenoptera : Braconidae. Ann. Mus. Stor. nat., Genova **64** 1951 pp. 310–326, 6 figs.

Masne *see* La Masne.

1932.—Mateu, J. El género *Orthomus* Chaud. en las islas atlántidas (Col. Carabidae). Eos, Madrid **27** 1951 pp. 277–289, 2 maps.

Matsuda, R. *see* Esaki & Matsuda.

1933.—Matthée, J. J. The structure and physiology of the egg of *Locustana pardalina* (Walk.). Abstr. Diss. Univ. Cambridge **1948-49** 1950 pp. 29–30. Also Sci. Bull. Dep. Agric. Un. S. Afr., Pretoria no. 316 1951 83 pp. 19 figs. [Orth.]

1934.—Matthes, E. Der Einfluss der Fortpflanzung auf die Lebensdauer eines Schmetterlings (*Fumea crassionella*). Z. vergl. Physiol., Berlin **33** 1951 pp. 1–13, 2 figs. [Lep.]

1935.—Mattingly, P. F. *Culex* (*Culex*) *nakuruensis* sp. n. (Diptera, Culicidae), a remarkable new mosquito from the East African Highlands. Proc. R. ent. Soc. London (B) **20** 1951 pp. 44–46, 1 fig.

1936.—Mattingly, P. F., **Rozeboom,** L. E., **Knight,** K. L., **Laven,** H., **Drummond,** F. H., **Christophers,** S. R. & **Shute,** P. G. The *Culex pipiens* complex. Trans. R. ent. Soc. London **102** 1951 pp. 331–382, 5 figs. [Dipt.]

Mattingly, P. F. *see* Chow & Mattingly.

1937.—Mavromoustakis, G. A. On the bees (Hymenoptera, Apoidea) of Cyprus.—Part I. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 334–254, 1 fig.

1938.—Mavromoustakis, G. A. New and little-known bees of the subfamily Anthidiinae (Apoidea).—Part IV. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 617–624, 6 figs.

1939.—Mavromoustakis, G. A. Further contributions to our knowledge of the Ethiopian Anthidiinae (Hymenoptera, Apoidea) and their classification. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 962–981, 4 figs.

1940.—Maynard, E. A. A monograph of the Collembola or springtail insects of New York State. Ithaca, N.Y., Comstock Pub. Co. Inc. 1951 xxii & 339 pp. 37 pls. (4 col.), 1 col. frontisp. 4 figs.

1941.—Mayné, R. & **Donis,** C. Insectes et champignons xylophages congolais. Bull. agric. Congo belge, Brussels **42** 1951 pp. 319–346, 6 figs. [Col.]

1942.—Mayo, V. K. New western Ephemeroptera II. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 121–125, 10 figs.

1943.—Medem, F. Biologische Beobachtungen an Psocopteren. Zool. Jahrb., Jena Abt. Syst. **79** 1951 pp. 591–613, 2 figs.

1944.—[Medvedev, S. I.] Fn SSSR. Coleoptera 10 no. 1. Lamellicorns (Scarabaeidae) Subfam. Melolonthinae, pt. 1 (cockchafers). [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **46** 1951 514 pp., 953 figs.

1945.—Meier, K. & **Wittstadt,** H. Massenauftreten von *Celerio gallii* Rott. um Nürnberg im Jahre 1950. Ent. Z., Frankfurt a. M. **61** 1951 pp. 50–55, 63–64. [Lep.]

Meillon *see* De Meillon.

1946.—Melander, A. L. The North American species of Tethinidae (Diptera). J. New York ent. Soc. **59** 1951 pp. 187–212, 1 pl.

1947.—Melichar, L. Monographie der Cicadellinen. V. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 72–112. [Hem.]

1948.—Melis, A. Precisazioni morfo-biologiche sull' *Aspidiotus perniciosus* Comst. Redia, Florence **36** 1951 pp. 1–91, 8 pls. [Hem.]

1949.—Mell, R. Aus der Biologie der chinesischen *Actias* Leach (*Argema chapae* sp. n., *A. sinensis* f. *virescens* f.n.). Ent. Z., Frankfurt a. M. **60** 1950 pp. 41–45, 53–56, 1 fig. [Lep.]

1950.—Mell, R. Fragestellungen um Totenköpfe (Gattung *Acherontia*). Syllegomena biol. (Festschr. 80. Geburtst. O. Kleinschmidt), Leipzig 1950 pp. 248–255. [Lep.]

1951.—Mell, R. Inventur und ökologisches Material zu einer Biologie der südchinesischen Pieriden. Beiträge zur Fauna sinica XXI. Zoologica, Stuttgart **36** 1943 Heft 100 132 pp. 3 pls. (1 col.) 3 figs. 4 fldg. tables. [Lep.]

1952.—Mellini, E. Osservazioni su alcuni insetti della *Carlina acaulis* L. f. *caulescens* Lam. Boll. Ist. Ent. Bologna **18** 1951 pp. 205–244, 22 figs.

1953.—Mellini, E. Insetti del *Carduus nutans* L. I.–II. (Coleoptera Curculionidae). Boll. Ist. Ent. Bologna **18** 1951 pp. 272–292, 12 figs., 319–349, 17 figs.

1954.—Menon, M. A. U. On certain little-known external characters of adult mosquitoes and their taxonomic significance. Proc. R. ent. Soc. London (B) **20** 1951 pp. 63–71, 3 figs. [Dipt.]

1955.—Menon, M. A. U. Preparing dry mounts of mosquito larvae and larval skins without using absolute alcohol. Stain Tech., Geneva, N.Y. **26** 1951 pp. 33–34. [Dipt.]

1956.—Menozzi, C. Missione biologica Sagan-Omo diretta dal Prof. Edoardo Zavattari. Dermaptera. Riv. Biol. colon., Rome **10** (1949–1950) 1951 pp. 75–76.

Mentzer, C. *see* Chauvin & Mentzer.

1957.—Menzer, G. & **Stockhammer,** K. Zur Polarisationsoptik der Fazettenaugen von Insekten. Naturwissenschaften, Berlin **38** 1951 pp. 190–191, 3 figs. [Dipt.]

1958.—Menzies, G. C., **Eads,** R. B. & **Hightower,** B. G. List of Anoplura from Texas. Proc. ent. Soc. Washington **53** 1951 pp. 150–152.

1959.—Méquignon, A. Persistance d'erreurs (Col.). Trav. Ass. Nat. Loing. Moret-sur-Loing no. 11 1948 pp. 161–164.

1960.—Merrell, D. J. Interspecific competition between *Drosophila funebris* and *Drosophila melanogaster*. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 159–169, 3 figs. [Dipt.]

1961.—Messikommer, E. Mikrobiologische Beobachtungen am Schulgartenteich der Kantonsschule in Winterthur. Mitt. naturw. Ges. Winterthur Heft 25 1948 pp. 23–50, 15 pls.

1962.—Metcalf, Z. P. Phylogeny of the Homoptera Auchenorhyncha. Comment. biol., Helsingfors **12** 1951 no. 1 pp. 1–14. [Hem.]

1963.—Metcalfe, C. L. & **Flint,** W. P. Destructive and useful insects. Their habits and control. Revised by R. L. Metcalfe. New York and London, McGraw-Hill Book Co. Inc. 1951 3rd ed. xiv and 1071 pp. 584 figs.

Metcalfe, R. L. *see* Metcalfe, C. L. & Flint.

1964.—Meyer, G. Lichtfangergebnisse in Hamburg-Othmarschen (Lepidopt.). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 99–100.

1965.—Meyer, G. F. Versuch einer Darstellung von Neurofibrillen im zentralen Nervensystem verschiedener Insekten. Zool. Jb., Jena Anat. **71** 1951 pp. 413–426, 3 tables.

Meyer, H. *see* Piepho & Meyer.

1966.—Meyer, P. *Bembidion*-Studien. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 102–105. [Col.]

1967.—Michel, J. Ein Beitrag zur Schmetterlingsfauna der Lutherstadt Eisleben und ihrer näheren Umgebung. Ent. Z., Frankfurt a. M. **60** 1950 pp. 121–127, 135–136, 142. [Lep.]

1968.—Michener, C. D. Subgeneric groups of *Hemisia* (Hymenoptera, Apoidea). J. Kans. ent. Soc., Manhattan **24** 1951 pp. 1–11, 27 figs.

1969.—Michener, C. D. Records of small Megachilid bees (Hymenoptera). J. Kans. ent. Soc., Manhattan **24** 1951 pp. 50–55.

1970.—Michener, C. D. Records and descriptions of Megachilid bees from Texas (Hymenoptera). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 61–71, 13 figs.

1971.—Micks, D. W. & **Ellis,** J. P. Free amino acids in adult mosquitoes. Proc. Soc. exp. Biol., New York **78** 1951 pp. 69–72, 1 fig. [Dipt.]

1972.—Middlekauff, W. W. The horse flies and deer flies of California (Diptera-Tabanidae). Bull. Calif. Ins. Surv., Berkeley **1** 1950 pp. 1–24, 1 pl.

1973.—Mikšić, A. Bilješke o Scarabaeidama jugoslavenske faune (Coleoptera–Lamellicornia). [In Czech with French summary.] God. biol. Inst. Sarajevu **2** (1949) 1950 pp. 121–127, 5 figs.; also in Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950 pp. 159–164.

1974.—Mikšić, R. Bilješke o Scarabaeidama palearktičke faune. Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950 pp. 165–167. [Col.]

1975.—Mikulska, J. The chromosome numbers in *Otiorrhynchus salicis* Ström. (Curculionidae, Coleoptera) in Poland. Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 269–276, 1 pl. Abstract in English in C.R. Sci. math. nat. Acad. polon., Cracow **1950** 1951 no. 8–10 pp. 6–7.

1976.—Miles, M. Factors affecting the behaviour and activity of the cabbage root fly (*Erioischia brassicae* Bché). Ann. appl. Biol., London **38** 1951 pp. 425–432, 1 fig. [Dipt.]

Miles, P. *see* Omer-Cooper & Miles.

1977.—Miller, F. & **Povolný,** D. *Boreus lokayi* Klp. (Panorpata, Boreidae) v Čsr. [In Czech with English summary.] Ent. Listy, Brno **13** 1951 pp. 91–96, 26 figs. [Mecopt.]

1978.—Miller, F. & **Povolný,** D. *Homeosoma nebulellum* Hbn.—Nový škůdce slunečnice u nás. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 49–59, 42 figs. [Lep.]

Miller, J. J. *see* Musgrave & Miller.

1979.—Miller, L. A. Observations on the bionomics of some northern species of Tabanidae (Diptera). Canad. J. Zool., Ottawa **29** 1951 pp. 240–263, 2 pls. 13 figs.

1980.—Miller, N. C. E. New Reduviidae in the collection of the British Museum (Natural History). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 465–480, 10 figs., 945–955, 5 figs. [Hem.]

1981.—Miller, N. C. E. A new genus of Rhyparochrominae (Hemiptera–Lygaeidae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1054–1056, 2 figs.

1982.—Miller, N. C. E. A new species of *Afrius* (Hem., Pentatomidae) predacious on *Schematiza cordiae* Barb., in Mauritius. Bull. ent. Res., London **42** 1951 pp. 183–184, 1 fig.

1983.—Miller, N. C. E. New Hemiptera–Heteroptera from Egypt. Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 127–131, 3 figs.

1984.—Miller, N. C. E. The group *tarsatus* of the genus *Reduvius* (Hemiptera Reduviidae). Comment. biol., Helsingfors **12** 1951 no. 10 pp. 1–39, 27 figs.

Miller, N. C. E. *see* China & Miller.

Millspaugh, D. D. *see* Kajihiro & Millspaugh; Rhodebeck & Millspaugh; Schaffner & Millspaugh; Sutton & Millspaugh; Yoshimoto & Millspaugh.

1985.—[Miram, É. F.] Mantodea, Phasmatodea and jumping straight-winged Saltatoria (Orthoptera s.str.) of the Tadzhik SSR according to the collections of the parasitological expedition of the Academy of Sciences of the USSR in 1934. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 714–719, 3 figs.

Miré, P. de *see* Balazuc, Miré, Sigwalt & Théodoridès.

1986.—[Mishchenko, L. L.] Revision of Acrididae of the genus *Paranocarodes* I. Bol. (Saltatoria–Orthoptera, Acrididae) and their nearest kin. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **77** 1951 pp. 517–520, 11 figs.

1987.—[Mishchenko, L. L.] A revision of Acrididae of the genus *Tropidauchen* Sauss. (Saltatoria–Orthoptera, Acrididae) and their nearest kin. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **77** 1951 pp. 737–740, 16 figs.

1988.—[Mishchenko, L.] The genus *Eumetrioptera* Miram (Saltatoria (Orthoptera s. str.) Tettigoniodea). [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 326–333, 2 figs.

1989.—[Mishchenko, L.] The genus *Diexis* Zub. (Saltatoria (Orthoptera s. str.), Acridodea). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 206–212, 10 figs.

1990.—[Mishchenko, L. L.] Dermatoptera, Blattodea, Mantodea, Phasmatodea and jumping Orthoptera (Saltatoria (Orthoptera s. str.)) of the Hissar valley (Tadzhik SSR). [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 735–749.

Mishchenko, L. L. *see* Beĭ-Bienko & Mishchenko.

1991.—Misra, S. D., **Nair,** K. R. & **Roonwal,** M. L. Dynamics of eye-stripe composition, biometrical ratios and certain other characters during phase transformation in the Desert Locust. Current Sci., Bangalore **20** 1951 pp. 164–165. [Orth.]

Misra, S. D. *see* Roonwal, Bhasin, Pant & Misra.

1992.—Missonnier, J. Influence de la lumière sur le développement de la teigne de la farine (*Ephestia kuehniella* L.). C.R. Acad.Sci., Paris **233** 1951 pp. 986–987, 2 figs. [Lep.]

Mitchell, C. J. *see* Clark & Mitchell.

1993.—Mitchell, D. F. & **Epling,** C. The diurnal periodicity of *Drosophila pseudoobscura* in Southern California. Ecology, Lancaster, Pa. **32** 1951 pp. 696–708, 7 figs. [Dipt.]

Mitchell, H. K. *see* Hadorn & Mitchell.

1994.—Mitchell, T. B. Some new species of bees from the eastern United States. J. Elisha Mitchell sci. Soc., Chapel Hill **67** 1951 pp. 231–248, 1 pl. [Hym.]

Miyao, G. *see* Yasuzumi & Miyao.

1995.—Miyatake, M. The larva and pupa of *Paratrichius doenitzi* (Harold, 1879) (Coleoptera : Scarabaeidae). Trans. Shikoku ent. Soc. **2** 1951 pp. 1–6, 16 figs.

1996.—Miyatake, M. The immature stages of *Cylindrocaulus patalis* (Lewis, 1883) (Coleoptera : Passalidae). Trans. Shikoku ent. Soc. **2** 1951 pp. 27–30, 1 pl.

1997.—Miyatake, M. Phryneidae of Shikoku (Diptera : Nematocera). Trans. Shikoku ent. Soc. **2** 1951 p. 30.

1998.—Mockford, E. L. The Psocoptera of Indiana. Proc. Indiana Acad. Sci., Indianapolis **60** (1950) 1951 pp. 192–204.

1999.—Móczár, L. Les Cleptidae du Musée hongrois d'histoire naturelle. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **1** 1951 pp. 260–283, 36 figs.

2000.—Mollard, E. Ailes naturelles et vol humain. Paris, Libr. Sci. aéronaut. 1950 58 pp. 54 figs.

2001.—Monard, A. Résultats de la Mission Zoologique Suisse au Cameroun. Lépidoptères Rhopalocères. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 pp. 233–235.

2002.—[Monchadskiĭ, A. S.] Larvae of blood-sucking mosquitoes of the USSR and neighbouring countries (Subfam. Culicinae). 2nd ed. [In Russian.] Opred. Faune SSSR, Moscow **37** 1951 288 [+2] pp., 142 figs.

2003.—[Monchadskiĭ, A. S.] Some larvae of *Finlaya* (Diptera, Culicidae) from tree holes. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1949 pp. 253–261, 8 figs.

2004.—[Monchadskiĭ, A. S.] The attack of mosquitoes on man under natural conditions of the Subarctic and factors that regulate it. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 122–166, 6 figs. [Dipt.]

2005.—Monrós, F. Nuevas especies de *Euryscopa* sudamericanas (Col., Chrysomelidae, Clytrinae). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 293–395, 9 figs.

2006.—Monrós, F. Descriptions of new Neotropical Clytrinae (Col., Chrysomelidae). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1146–1158, 13 figs.

2007.—Monrós, F. Notes on Chrysomelid beetles of the subfamily Chlamisinae, with descriptions of new species. Proc. U.S. nat. Mus., Washington, D.C. **101** 1951 no. 3283 pp. 451–463, 6 figs. [Col.]

2008.—Monrós, F. Consideraciones sobre *Leasia australis* Jac. (Coleoptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 451–456, 13 figs.

2009.—Monrós, F. Nuevo género de Megascelinae de la Patagonia (Coleoptera Chrysomelidae). Rev. chil. Ent., Santiago **1** 1951 pp. 171–174, 2 figs.

2010.—Monrós, F. Descripción de diez especies nuevas de Babiini neotropicales (Col. Chrys.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 149–161, 12 figs.

2011.—Montgomery, B. E. Notes and records of Indiana Odonata, 1941–1950. Proc. Indiana Acad. Sci., Indianapolis **60** (1950) 1951 pp. 205–210.

2012.—Moore, B. P. On preserving the colours of dragonflies and other insects. Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 179–186, 3 figs.

2013.—Morales Agacino, E. Algunos datos de interés sobre la *Anechura bipunctata* (Fabr.) (Derm. Forf.). Bol. Soc. esp. Hist. nat., Madrid **48** 1950 Secc. Biol. pp. 275–278, 1 fig.

2014.—Morales Agacino, E. Apuntes sobre los Dermaptera marroquies del Instituto Español de Entomologia. Eos, Madrid **27** 1951 pp. 257–263.

2015.—Morales Agacino, E. Notas sobre Ortopteroides recogidos en Angola por Don Antonio de Barras Machado (1.ª Parte—Dermaptera). Publ. cult. Comp. Diam. Angola, Lisbon no. 11 1951 pp. 37–47, 2 figs.

2016.—Moreaux, —. Mise au point des connaissances actuelles rélatives à la ponte et une déterminisme du sexe chez l'abeille. Bull. Soc. Sci. Nancy (N.S.) **10** 1951 pp. 21–33. [Hym.]

2017.—Moretti, G. & **Serralunga,** G. La biocenosi degli insetti del Torrente Soldo (Valsolda). R.C. Ist. lombardo, Milan, Cl. Sci. mat. nat. (3) **13** 1949 pp. 287–327.

Morgan, B. B. *see* Knipping, Morgan & Dicke.

2018.—Morimoto, R., **Iwata,** K. & **Yasumatsu,** K. Observations on *Bombus diversus* Smith (Hymenoptera, Apidae). Mushi, Fukuoka **22** 1951 pp. 51–53, 2 figs.

2019.—Mörzer Bruijns, M. F. & **Westhoff,** V. The Netherlands as an environment for insect life. Amsterdam, Netherlands ent. Soc. 1951 67 pp. 15 figs.

2020.—Mosebach, E. Ein Verfahren der Stubenfliegenzucht für Serienuntersuchungen. NachrBl. dtsch. PflSchDienst., Ludwigsburg **3** 1951 pp. 100–101, 2 figs.

2021.—Mosely, M. E. Descriptions of new Sarawak Trichoptera. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 480–490, 18 figs.

Motomura, A. *see* Suzuki, Karasawa, Kimura & Motomura.

2022.—Moucha, J. Contribution à la connaissance de la distribution géographique du papillon *Leptidea morsei* Fent. ssp. *major* Lork. (Lep. Rhop.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 181–186, 4 figs.

2023.—Mouchamps, R. Contribution à la systématique des Coléoptères Gyrinides (4e note). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 229–234.

Mrak, E. M. *see* El-Tabey & Mrak.

2024.—Mudrow-Reichenow, L. Die keimfreie Aufzucht der Gelbfiebermücke *Aedes aegypti*. Zool. Anz., Leipzig **146** 1951 pp. 167–177. [Dipt.]

2025.—Muesebeck, C. F. W., **Krombein,** K. V. & **Townes,** H. K. Hymenoptera of America North of Mexico —synoptic catalog. Agric. Monogr. U.S. Dep. Agric. no. 2 1951 Washington, D.C. [1+] 1420 pp. 1 fldg. map.

Muhammad Yunus *see* Yunus.

2026.—Mühle, E. & **Fröhlich,** G. Vergleichende Untersuchungen über *Brachyrrhinus* (=*Otiorrhynchus*) *ligustici* L. und *Liophloeus tessulatus* Müll. und deren Beziehungen zur Liebstöckel, *Levisticum officinale* Koch. Beitr. Ent., Berlin **1** 1951 pp. 1–41, 20 figs. [Col.]

Muirhead Thomson *see* Thomson.

2027.—Muir-Wood, H. M. Request for a ruling on the question whether any two names, each based upon a modern patronymic, are to be regarded as homonyms of one another, when the patronymics in question are identical in spelling but differ through the presence or absence of an umlaut or other diacritic mark. Bull. zool. Nomen., London **6** 1951 pp. 92–94.

2028.—Mukerji, D. & **Sarma,** P. S. Spermatheca in sucking louse. Nature, London **168** 1951 p. 612, 2 figs. [Anopl.]

2029.—Mukerji, S. A new accessory structure to the ovipositor to aid oviposition and boring in a parasitic Scelionid (Hymenoptera Proctotrypoidea). Current Sci., Bangalore **20** 1951 p. 166, 1 fig.

2030.—Mukerji, S. & **Chatterjee,** S. N. Morphology of the genital structures of some of the Bruchidae (Lariidae) of India and Ceylon and their taxonomic importance. Indian J. Ent., New Delhi **13** 1951 pp. 1–28, 8 pls. [Col.]

2031.—Mukerji, S. & **Singh,** H. Studies on the chaetotaxy of larvae of *Plusia* species (Lepidoptera: Phalaenidae). Proc. R. ent. Soc. Lond. (B) **20** 1951 pp. 15–24, 3 pls.

2032.—Müller, A. H. Grundlagen der Biostratonomie. Abh. dtsch. Akad. Wiss. Berlin, Kl. Math. allg. Naturw. **1950** no. 3 1951 147 pp. 79 figs. [Fossil.]

2033.—Müller, G. Su alcuni *Laemostenus* del gruppo *Antisphrodrus* Schaufuss (Col. Carabidae). Mem. Soc. ent. ital., Genoa **30** 1951 p. 106.

2034.—Müller, H. J. Die Symbiose der Fulgoroiden (Homoptera-Cicadina). Zoologica, Stuttgart **36** 1940 Heft 98, 220 pp. 38 pls. (1 col.) 29 figs.

2035.—Müller, H. J. Ueber die intrazellulare Symbiose der Peloridiide *Hemiodoecus fidelis* Evans (Homoptera Coleorrhyncha) und ihre Stellung unter den Homopterensymbiosen. Zool. Anz., Leipzig **146** 1951 pp. 150–167, 10 figs.

2036.—Mulnard, J. Quelques données sur la répartition de l'acide ribonucléique dans le développement embryonnaire des insectes. *Acanthoscelides obtectus* Say (Coléoptère) et *Vespa germanica* (Hyménoptère). C.R. Ass. Anat., Paris no. 52 1948 pp. 393–397, figs.

Mulrennan, J. A. *see* Thurman, Haeger & Mulrennan.

2037.—Munro, H. K. Species of *Paroxyna* (Trypetidae, Dipt.) from Kilimanjaro. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 709–713.

2038.—Munroe, E. G. The genus *Junonia* in the West Indies (Lepidoptera, Nymphalidae). Amer. Mus. Novit., New York no. 1948 1951 16 pp.

2039.—Munroe, E. G. A previously unrecognized species of *Nymphula* (Lepidoptera: Pyralidae). Canad. Ent., Ottawa **83** 1951 pp. 20–23, 1 pl. 2 figs.

2040.—Munroe, E. G. The identity and generic position of *Chauliodes disjunctus* Walker (Megaloptera: Corydalidae). Canad. Ent., Ottawa **83** 1951 pp. 33–35, 3 figs.

2041.—Munroe, E. G. North American Pyraustinae: notes and descriptions (Lepidoptera: Pyralidae). Canad. Ent., Ottawa **83** 1951 pp. 161–169, 1 pl. 14 figs.

2042.—Munroe, E. The geographic variation of *Dasyuris polata* (Duponchel) in North America (Lepidoptera: Geometridae). Canad. Ent., Ottawa **83** 1951 pp. 290–294, 12 figs.

2043.—Munroe, E. G. The de Rabié paintings of Lepidoptera in the Blacker Library of Zoology, McGill University with notes on the butterflies represented therein. Lepidopt. News, Connecticut **5** 1951 pp. 55–57.

2044.—Murthy, M. R. V., **Shankarappa,** B. S. & **Sreenivasaya,** M. Influence of antibiotics on the growth of the silkworm *Bombyx mori*. Current Sci., Bangalore **20** 1951 pp. 259–270. [Lep.]

2045.—Musgrave, A. J. Histophysiology and insecticide action. Rep. ent. Soc. Ontario, Toronto **81** (1950) 1951 pp. 26–33.

2046.—Musgrave, A. J. & **Miller,** J. J. A note on some preliminary observations on the effect of the antibiotic terramycin on insect symbiotic micro-organisms. Canad. Ent., Ottawa **83** 1951 pp. 343–345.

2047.—Muspratt, J. The bionomics of an African *Megarhinus* (Dipt., Culicidae) and its possible use in biological control. Bull. ent. Res., London **42** 1951 pp. 355–370, 1 fig.

2048.—Muspratt, J. A gynandromorph of a predatory mosquito. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 24–25, 1 fig. [Dipt.]

2049.—Muspratt, V. M. Southward migration of Rhopalocera in the south of France. Entomologist,London **84** 1951 pp. 226–229.

2050.—Muspratt, V. M. Observations sur quatre migrations de Lépidoptères. Rev. franç. Lépidopt., Paris **13** 1951 pp. 125–127.

2051.—Nabokov, V. Remarks on F. Martin Brown's " Measurements and Lepidoptera." Lep. News, New Haven **4** (1950) 1951 pp. 75–76.

2052.—Naezer, H. W. A new species of *Gorpis* (Heteroptera-Nabidae) from Sumatra. Treubia, Bogor **21** 1951 pp. 115–116, 1 fig.

Nagasawa, S. *see* Ishii & Nagasawa.

2053.—Nagy, B. Quantitative and qualitative investigation of the Saltatoria on the Tihany Peninsula. Arch. biol. Hung., Tihany **19** 1951 pp. 95–122, 2 figs. [Orth.]

Nair, K. R. *see* Misra, Nair & Roonwal.

2054.—Nájera, L. E. Nueva técnica para la creación y mantenimiento de colonias de *Phlebotomus*. Rev. Sanid. hig. públ., Madrid **24** 1950 pp. 28–41, 8 figs. [For English version see Z.R. **87** 1950 No. **2048** p. 108.]

Nájera *see* Díaz Nájera.

2055.—Nakane, T. New or little-known Coleoptera from Japan and its adacent regions. VI. Coprophagous Lamellicornia. Ent. Rev. Japan, Osaka **5** 1951 pp. 69–72.

2056.—Nakane, T. On the Scarabaeidae of Japan (I.). [In Japanese.] Ent. Rev. Japan, Osaka **5** 1951 pp. 97–100, 1 pl. [Col.]

2057.—Nakane, T. New or little-known Coleoptera from Japan and its adjacent regions III.—Endomychidae. Insecta matsum., Sapporo **17** 1951 pp. 113–118, 3 figs.

Nascimento, R. do *see* Oliveira, Andrade & Nascimento.

2058.—Nasr, Salah Eldin Abul. Structure and development of the reproductive system in Diptera with reference to insects generally. Abstr. Diss. Univ. Cambridge **1948-49** 1950 pp. 23–25.

2059.—Nast, J. Homopterological notes VI–IX. Ann. Mus. zool. polon., Warsaw **14** 1951 pp. 193–198, 2 figs.

2060.—Naumann, H. Die " Fangmaske " der Libellenlarven. Aquar. Terrar. Z., Stuttgart **4** 1951 pp. 71–73, 4 figs. [Odon.]

2061.—Naumann, H. Brutfürsorge bei Wasserkäfern. Aquar. Terrar. Z., Stuttgart **4** 1951 pp. 264–266, 8 figs. [Col.]

2062.—Naumann, H. Die Atemorgane und die Atmung der Kleinlibellenlarven. Ent. Z., Frankfurt a. M. **61** pp. 42–47, 55–56, 4 figs. [Odon.]

2063.—Needham, J. G. The ditch at Archbold Biological Station and the dragonflies resident in it. Ecology, Lancaster, Pa. **30** 1949 pp. 450–460, 2 figs.

2064.—Needham, J. G. A new species of *Ophiogomphus* (Odonata). Ent. News, Philadelphia **62** 1951 pp. 41–43.

2065.—Needham, J. G. Prodrome for a manual of the dragonflies of North America, with extended comments on wing venation systems. Trans. Amer. ent. Soc., Philadelphia **77** 1951 pp. 21–62, 3 pls. 9 figs. [Odon.]

Nefedova, V. A. *see* Demyanovskiĭ, Nefedova & Kondrat'eva.

Nègre, J. *see* Balazuc, Dresco, Henrot & Nègre.

2066.—Neschner, E. Eine auffällige *Pieris napi*-Form. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 108–112, 154. [Lep.]

2067.—Netolitzky, F. Kritische Bemerkungen über Arten und Formen der Grossgattung *Bembidion* Latr., sensu Müller, aus Siebenbürgen. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 119–121. [Col.]

2068.—Newell, I. M., **Bosch,** R. van der & **Haramoto,** F. H. An improved method of rearing field-collected fruit fly larvae. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 297–299, 1 fig.

2069.—Niblett, M. Notes on some gall-causing Cecidomyiidae: VII. Entomologist, London **84** 1951 pp. 43–44. [Dipt.]

2070.—Niblett, M. The Cynipid genus *Aulacidea* (Hymenoptera). London Naturalist **1950** 1951 pp. 8–10. [Hym.]

2071.—Niblett, M. Some notes on the genus *Rhodites* (Hymenoptera, Cynipidae). Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 204–206.

Nickerson, N. H. *see* White & Nickerson.

2072.—Nicoli, R. M. Phlébotomes de la Corse cristalline. Etude biométrique et critique du *Phlebotomus perniciosus legeri* (J. Mansion, 1913) (Nematocera Psychodidae). Bull. Soc. Path. exot., Paris **44** 1951 pp. 495–509, 1 pl. [Dipt.]

2073.—Nielsen, A. Contributions to the metamorphosis and biology of the genus *Atrichopogon* Kieffer (Diptera, Ceratopogonidae) with remarks on the evolution and taxonomy of the genus. Bidr. Skrift., Copenhagen **6** 1951 no. 6, 95 pp. 2 pls. 33 figs.

2074.—Nielsen, A. Spring fauna and speciation. Congr. int. Limnol., Stuttgart **11** 1951 pp. 261–263. [Trichopt.]

2075.—Nielsen, A. Is dorsoventral flattening of the body an adaptation to torrential life? (Summary and discussion.) Congr. int. Limnol., Stuttgart **11** 1951 pp. 264–267.

2076.—Nielsen, A. *Hydroptila occulta* Eaton, new to the Danish fauna. With descriptions of the specific characters. Ent. Medd., Copenhagen **26** 1951 pp. 122–129, 7 figs. [Trichopt.]

2077.—Nielsen, A. On the zoogeography of springs. Hydrobiologia, The Hague **2** 1950 pp. 313–321, 6 figs.

2078.—Nielsen, A. Tre noctuider nye for Norges fauna, funnet på Jaeren (Ry). Norsk ent. Tidsskr., Oslo **8** 1951 pp. 217–218, 1 fig. [Lep.]

2079.—Nielsen, A. The torrential invertebrate fauna. Oikos, Copenhagen **2** 1950 pp. 176–196, 14 figs.

Nielsen, A. *see* Braestrup, F. W.

2080.—Nielsen, C. & **Conci,** C. Note su Odonati italiani. Boll. Soc. ent. ital., Genoa **81** 1951 pp. 76–79.

Nielsen, L. T. *see* Rees & Nielsen.

2081.—Nielsen, P. *Limonia* (*Dicranomyia*) *vibei* n. sp. from Grønland (Dipt. Tipul.). Ent. Medd., Copenhagen **26** 1951 pp. 185–186, 2 figs.

2082.—Nijveldt, W. *Clinodiplosis pisicola* Barnes (Diptera, Itonididae) f. n. sp., als inquiline van *Contarinia pisi* Winn. Ent. Ber., Amsterdam **13** 1951 pp. 233–236, 12 figs.

2083.—Nijveldt, W. Een geval van facultatieve parthenogenesis bij *Wachtliella persicariae* L. (Diptera, Itonididae). Ent. Ber., Amsterdam **13** pp. 373–375, 5 figs.

Nikitina, I. A. *see* Lobashev & Nikitina.

2084.—[Nikol'skaya, M. N.] On two species of the genus *Anagyrus* How. (Hymenoptera, Chalcidoidea) parasites of the Comstock mealybug. [In Russian.] C.R. Akad. Sci. URSS, Moscow (N.S.) **70** 1950 pp. 545–547, 2 figs.

2085.—[Nikol'skaya, M. N.] On sexual dimorphism of the wings of *Lathromeris senex* Grese (Hymenoptera, Trichogrammatidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 254–256, 2 figs.

2086.—[Nikol'skaya, M. N.] A new species of parasite of Ixodid ticks *Ixodiphagus hirtus* Nik., sp. n. (Hymenoptera, Chalcidoidea). [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 272–274, 14 figs.

2087.—Niswander, R. E. Life history and respiration of the milkweed bug *Oncopeltus fasciatus* (Dallas). Ohio J. Sci., Columbus **51** 1951 pp. 27–33, 2 figs. [Hem.]

2088.—Nixon, G. E. J. The association of ants with Aphids and Coccids. London, Commonw. Inst. Ent. 1951 36 pp. [Hym., Hem.]

2089.—Noirot, C. Le développement des neutres chez les termites supérieurs (Termitidae). IV. C.R. Acad. Sci., Paris **233** 1951 pp. 447–449. [Isopt.]

Noirot, C. *see* Grassé & Noirot.

2090.—Noland, J. L. & **Baumann,** C. A. Protein requirements of the cockroach *Blatella germanica* (L.). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 184–188. [Orth.]

2091.—Nolte, H.-W. Beiträge zur Morphologie und Biologie des Lärchenblasenfusses (*Taeniothrips laricivorus* Krat.). Beitr. Ent., Berlin **1** 1951 pp. 110–139, 12 figs. [Thysanopt.]

2092.—Nolte, H. W. Die Feinde des Lärchenblasenfusses (*Taeniothrips laricivorus*). Ein Beitrag zur Bedeutung der räuberischen Feinde der Thysanopteren. Zool. Anz., Leipzig **146** 1951 pp. 187–191.

2093.—Nomura, K. On the methods of comparison of insect-faunae, with special reference to the correlation method. [In Japanese with English summary.] Bull. sci. Kyusyu Univ., Fukuoka **9** 1940 pp. 235–262, 6 figs.

2094.—Nonato, E. & **Pavan,** C. A new species of *Rhynchosciara* Rübsaamen, 1894 (Diptera, Mycetophilidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 435–437, 5 figs.

Nonato, E. *see* Dreyfus, Nonato, Breuer & Pavan.

2095.—Normand, H. Nouveaux Coléoptères de l'Afrique du nord. Rev. franç. Ent., Paris **18** 1951 pp. 24–30, 8 figs.

2096.—Normand, H. Nouveaux Coléoptères de Tunisie (Lamellicornia). Rev. franç. Ent., Paris **18** 1951 pp. 156–163, 6 figs.

Northcott, F. E. *see* Smith & Northcott.

2097.—Novák, V. J. A. The metamorphosis hormones and morphogenesis in *Oncopeltus fasciatus* Dal. [With a summary in Czech.] Acta Soc. zool. bohemoslov., Prague **15** 1951 pp. 1–48, 1 pl. 9 figs. [Hem.]

2098.—Novák, V. J. A. New aspects of the metamorphosis of insects. Nature, London **167** 1951 pp. 132–133.

2099.—Novitski, E. Non-random disjunction in *Drosophila*. Genetics, New York **36** 1951 pp. 267–280, 2 figs. [Dipt.]

2100.—Nowak, W. Zur Morphologie der Männchen der grünen Pfirsichblattlaus (*Myzodes persicae* Sulzer). Z. Pflanzenb. u. Pflanzenschutz, Münich **2** 1951 pp. 83–84, 3 figs. [Hem.]

2101.—Nowell, W. R. The Dipterous family Dixidae in western North America (Insecta : Diptera). Microentomology, Stanford Univ. **16** 1951 pp. 185–270, 15 figs.

Noyes, D. T. *see* Hinton, Noyes & Ellis.

2102.—Nuorteva, P. Experimentelle Untersuchungen über die Nährpflanzenwahl einer oligophagen Zikade, *Aphrophora alni* (L.) (Hom., Cercopidae). Ann. ent. fenn., Helsinki **17** 1951 pp. 10–17, 1 fig.

2103.—Nuorteva, P. Beobachtungen über das gegenseitige Zahlenverhältnis der Geschlechter bei einigen Zikadenarten. Ann. ent. fenn., Helsinki **17** 1951 pp. 113–115. [Hem.]

2104.—Nutting, W. L. A comparative anatomical study of the heart and accessory structures of the Orthopteroid insects. J. Morph., Philadelphia **89** 1951 pp. 501–597, 21 pls.

2105.—Nyholm, T. Några fynd av sällsyntare skalbaggar. Opusc. ent., Lund **16** 1951 pp. 37–40. [Col.]

2106.—Obenberger, J. Révision du genre *Colobogaster* Solier (Col. Bupr.). Acta ent. Mus. nat. Pragae **26** 1948 no. 347, 43 pp. 3 pls.

2107.—Obenberger, J. De novis generis *Trachys* F. indonesiae speciebus tribus (Col. Buprestidae). Acta ent. Mus. nat. Prague **26** 1948 no. 349, 3 pp.

2108.—Obenberger, J. De subgeneris *Chrysoblemma* B. Jak. generis *Sphenoptera* Sol. speciebus novis. Acta ent. Mus. nat. Pragae **26** 1948 no. 350, 5 pp. [Col.]

2109.—Obr, S. Deuxième contribution à la connaissance des Psocoptères de Moravie. [In Czech with French summary.] Sborn. Kl. přír. Brně **29** 1951 pp. 105–119, 7 figs.

2110.—Obraztsov, N. Notes on the genus *Aterpia* Gn. (=*Esia* Heinr.) (Lepidoptera, Tortricidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 276–278.

2111.—Obraztsov, N. Neue und wenig bekannte Beniden (Lepidoptera). Ent. Z., Frankfurt a. M. **60** 1950 pp. 61–64, 71–72.

2112.—Obraztsov, N. Two new Palearctic genera of the tribe Laspeyresiini (Lepidoptera, Tortricidae). Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 99–100, 2 figs.

2113.—Obraztsov, N. *Pammene* (*Hemerosia*) *tomiana* (Z.) und andere ihr ähnliche Arten (Lepidoptera, Tortricidae). Tijdschr. Ent., Amsterdam **94** 1951 pp. 321–326, 2 figs.

2114.—Ochs, G. Zur Kenntnis der ostbrasilianischen *Gyretes*-Arten um *Gyretes glabratus* Régimbart (Ins. Col.). Senckenbergiana, Frankfurt a. M. **32** 1951 pp. 67–78, 2 pls.

2115.—Oehme, B. G. Neue Drüsen bei Malachiidae (Col.). Ent. Bl., Krefeld **47** 1951 pp. 16–22, 4 figs.

2116.—Oeser, R. Fliegenzucht. Aquar. Terrar. Z., Stuttgart **4** 1951 pp. 134–135. [Dipt.]

2117.—Oettingen, H. von. Geographische und ökologische Analyse der Thysanopterenfauna der östlichen Gebiete Mitteleuropas. Beitr. Ent., Berlin **1** 1951 pp. 44–59, 3 figs.

2118.—Oettingen, H. von. Die Thysanopterenfauna des Harzes. Beitr. Ent., Berlin **1** 1951 pp. 140–186, 4 figs.

2119.—Ogloblin, A. Dos Bethyloidea nuevos de la colección de la Fundación Miguel Lillo (Hymenopt.). Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 487–493, 7 figs.

2120.—Ogloblin, A. Dos especies nuevas del genero *Rhopalosoma* (Hym. Rhopalosomatidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 9–18, 9 figs.

2121.—[Ogloblin, D. A. & **Znoĭko,** D. V.] Fn SSSR. Coleoptera 18 no. 8. Pollen-eaters (Fam. Alleculidae), pt. 2 subfam. Omophlinae. [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **44** 1950 134 pp., 163 figs.

2122.—Ohbayashi, K. Historical review of the Japanese Cerambycidae, 3 (preliminary note). [In Japanese.] Ent. Rev. Japan, Osaka **5** 1951 pp. 92–96. [Col.]

2123.—Ohbayashi, K. Longicorn beetles from Mariana. Tenthredo, Kyoto **3** 1941 pp. 223–229. [Col.]

Oiticica, J. *see* Ferreira d'Almeida & Oiticica.

2124.—Okada, J. Bibionidae of Shansi, N. China (Diptera). Mushi, Fukuoka **22** 1951 pp. 65–67.

Okay *see* Selahattin Okay.

2125.—Öktay, M. Ueber den Fettkörper bei *Melophagus ovinus* und einigen anderen Hippobosciden. Rev. Fac. Sci. Univ. Istanbul, Ankara **16B** 1951 pp. 129–152, 11 figs. [Dipt.]

2126.—Olberg, G. Beobachtungen über die Lebensweise der Lehmwespe *Odynerus* (*Hoplopus*) *spinipes*. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 111–115, 5 figs. [Hym.]

2127.—Oldroyd, H. A giant Bombyliid (Diptera) bred from the pupa of a Cossid moth. Proc. R. ent. Soc. London (B) **20** 1951 pp. 49–50, 6 figs.

2128.—Oliveira, L. de, **Andrade,** R. M. de & **Nascimento,** R. do. Contribuição ao estudo hidrobiológico dos criadouros do *Anopheles tarsimaculatus* Goeldi, 1905 (=*Anopheles aquasalis* Curry, 1932) na Baixada Fluminense. Rev. brasil. Malariol., Rio de Janeiro **3** 1951 pp. 151–226, 18 figs. [Dipt.]

2129.—Oliveira, L. de, **Andrade,** R. M. de & **Nascimento,** R. do. Beiträge zu den hydrobiologischen Studien der Fundorte der Mückenlarven — *Anopheles tarsimaculatus* Goeldi, 1905—*Anopheles aquasalis*

Curry, 1932—in der Niederung Baixada Fluminense. Rev. brasil. Malariol., Rio de Janeiro **3** 1951 pp. 248–308. [Dipt.]

2130.—Oliveira, S. J. de. Nova espécie neotrópica do gênero *Cardiocladius* Kieffer, 1912 (Diptera, Chironomidae). Pap. avulsos Dep. Zool. São Paulo **10** 1951 pp. 133–138, 17 figs.

Olson, N. A. *see* Craig & Olson.

2131.—Omer-Cooper, J. & **Miles,** P. On *Lema trilineata*—a beetle closely resembling the tobacco slug, attacking the cape gooseberry. S. Afr. J. Sci., Johannesburg **47** 1951 pp. 330–333, 4 figs. [Col.]

Omura, S. *see* Umeya & Omura.

Onishi, K. *see* Rees & Onishi.

2132.—Opheim, M. Eldre funn av Macro-Lepidoptera i Norge. Norsk ent. Tidsskr., Oslo **8** 1951 pp. 207–217, 1 fig.

2133.—Opheim, M. To dagsommerfugler med vestlig utbredelse i Norge (*Parnassius mnemosyne* L. og *Cyclopides palaemon* Pall.). [With an English summary.] Univ. Bergen Årbok Naturv. Rekke **1948** 1949 no. 5, 11 pp. 2 pls. 3 figs. [Lep.]

2134.—d'Orchymont, A. Palpicornia (Col.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 307–311 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 295–299].

2135.—Orfila, R. N. Notas sobre Lepidoptera Saturnioidea L. *Namuncuraia mansosotoi* gen. n., sp. n. (Hemileucid., Dirphiin.). Misión Estud. Pat. reg. argent., Buenos Aires **22** no. 80 1951 pp. 45–52, 10 figs.

2136.—Orfila, R. M. Sinopsis de los *Stephanus* neotropicos, con descripción de una nueva especie de Argentina (Hym. Stephanidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 271–274, 1 fig.

2137.—Orfila, R. N. Un nuevo *Stephanus* neotropical (Hymen., Stephan.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 65–68, 4 figs.

2138.—Orser, W. B. & **Brown,** A. W. A. The effect of insecticides on the heartbeat of *Periplaneta*. Canad. J. Zool., Ottawa **29** 1951 pp. 54–64, 5 figs. [Orth.]

2139.—Ortiz, I. Descripción de *Stilobezzia glauca venezuelensis* n.vr. y *Monohelea mayeri* n. sp. Mem. Soc. Cient. nat. La Salle **10** 1950 pp. 199–204, 2 pls. [Dipt.]

2140.—Ortiz, I. Estudios sobre *Culicoides* (Diptera, Ceratopogonidae) VII.—*Culicoides dominicii* n. sp. y clave para el reconocimiento de las especies venezolanas. Noved. cient., Caracas Ser. Zool. no. 5 1951 12 pp., 17 figs.

2141.—Ortiz, I. Estudios en *Culicoides* I–V. Rev. Sanid. Assist. soc., Caracas **15** 1950 pp. 429–465, 8 pls. [Dipt.]

Ortiz, I. *see* Lane & Ortiz.

Ortner, A. *see* Galvagni & Ortner.

2142.—Osborne, M. F. M. Aerodynamics of flapping flight with application to insects. J. exp. Biol., London **28** 1951 pp. 221–245, 15 figs.

2143.—Osmaston, H. A. The termite and its uses for food. Uganda J., Kampala **15** 1951 pp. 80–83, 1 pl. [Isopt.]

2144.—Ossiannilsson, F. On the Psyllid of the marsh marigold, *Aphalara calthae* (Linn.). Comment. biol., Helsingfors **12** 1951 no. 13 pp. 1–8, 7 figs. [Hem.]

2145.—Ossiannilsson, F. Bidrag till kännedomen om den svenska sköldlusfaunan (Hom. Coccoidea). Opusc. ent., Lund **16** 1951 pp. 1–9.

2146.—Ossiannilsson, F. Homoptera aus einigen nordestländischen Inseln. Opusc. ent., Lund **16** 1951 pp. 10–14.

2147.—Ossiannilsson, F. On the shape of the apodemes of the second abdominal sternum of the males as a specific character in the genus *Macrosteles* Fieb. (Hom. Auchenorrhyncha). Opusc. ent., Lund **16** 1951 pp. 109–111, 12 figs.

2148.—Osthelder, L. Die Schmetterlinge Südbayerns und der angrenzenden nördlichen Kalkalpen. II. Teil. Die Kleinschmetterlinge. 1. u. 2. Hefte. Beilage Mitt. münchn. ent.

Ges., Münich **29** 1939 pp. 1–112, 2 pls.; **41** 1951 pp. 113–250, 3 figs. [Lep.]

Osthelder, L. *see* Daniel, Forster & Osthelder.

2148A.—Ôuchi, Y. Notes on some Cyrtid flies from China and Japan (Diptera sinica, Cyrtidae II). J. Shanghai Sci. Inst. (N.S.) **2** 1942 pp. 29–38, 10 figs.

2148B.—Ôuchi, Y. A revision of *Neoestromyia kienyangensis* Ôuchi and two species of the genus *Euprosopia*, Platystomatinae, from China (Diptera sinica, Otitidae I). J. Shanghai Sci. Inst. (N.S.) **2** 1942 pp. 39–43, 1 fig.

2148C.—Ôuchi, Y. On two new species of Chinese stalk-eyed flies (Diptera sinica, Diopsidae I). J. Shanghai Sci. Inst. (N.S.) **2** 1942 pp. 45–48, 2 figs.

2148D.—Ôuchi, Y. Notes on some Muscid flies from China, Manchoukuo and Japan (Diptera sinica, Muscidae, Muscinae IV). J. Shanghai Sci. Inst. (N.S.) **2** 1942 pp. 49–57, 8 figs.

2149.—Oughton, J. "Tagging" root maggot flies (*Hylemya* spp., Anthomyidae) by means of radioactive phosphorus. Rep. ent. Soc. Ontario, Toronto **81** (1950) 1951 pp. 91–92.

2150.—[Ovanesyan, T. T.] On the shape of the cells of the haemolymph of the larvae of the mulberry silkworm in the presence of different physiological conditions of the organism. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 86–88. [Lep.]

Ovazza, M. *see* Grenier & Ovazza.

2151.—Ozorski, E. Comment déterminer les espèces françaises du genre *Scoparia* Hw. ? Bull. Soc. ent. Mulhouse **1951** 1951 pp. 17–24, 30–33, 1 pl.

Packmann, E. M. *see* Begg & Packman.

2152.—Paclt, J. Sur la nocivité et la répartition géographique actuelle de *Nathrius brevipennis* (Muls.) Bosq (Insecta Col. Cerambycidae). Biol. Jaarb., The Hague **18** 1951 pp. 48–52.

2153.—Paclt, J. A new family name in Lepidoptera. Ent. Ber., Amsterdam **13** 1951 pp. 219–220.

2154.—Paclt, J. Contribution à l'étude de notre faune du domaine principalement endogé I. Ent. Listy, Brno **14** 1951 pp. 161–164.

Pagast, F. *see* Eichler, Löpmann & Pagast.

2155.—Pagés, J. Un diploure Japygidé des catacombes de Paris. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 217–219, 2 figs. [Thysanura.]

2156.—Pagés, J. Remarques à propos des *Japyx solifugus* Haliday conservés au Muséum d'Histoire naturelle de Paris. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 220–224, 5 figs. [Thysanura.]

2157.—Pagés, J. Contribution à l'étude de la faune endogée du Sahara. Projapygidae (Diplura). Bull. Soc. ent. France, Paris **56** 1951 pp. 129–136, 20 figs. [Thysanura.]

2158.—Palm, T. Anteckningar om svenska skalbaggar. VI. Ent. Tidskr., Stockholm **72** 1951 pp. 39–53, 3 figs. [Col.]

2159.—Palm, T. För Sverige nya Coleoptera. XII. Ent. Tidskr., Stockholm **72** 1951 pp. 54–59, 3 figs.

2160.—Palm, T. Biologiska studier över *Tragosoma depsarium* L. i sydöstra Jämtland (Col. Cerambycidae). Opusc. ent., Lund **16** 1951 pp. 55–64, 4 figs.

2161.—[Pankratova, V. Ya.] The fauna of the larvae of the family Tendipedidae of the basin of the Amu-dar'ya. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **9** 1950 pp. 116–198, 31 figs. [Dipt.]

2162.—Pant, G. D. & **Chatterjee,** N. C. A list of described immature stages of Indian Lepidoptera. Part II—Heterocera. Indian For. Rec., Delhi (N.S.) Ent. **7** 1951 pp. 267–333.

Pant, G. D. *see* Roonwal, Bhasin, Pant & Misra.

2163.—Papp, C. S. Verzeichnis der von Dr. Carl Fiedler beschriebenen südamerikanischen Cryptorhynchinen (Col. Curculionidae). II. I. Beitrag zur Förderung der wissenschaftlichen Zusammenarbeit mit dem neugegründeten "International Hylean Amazon Institute" in Ma-

naos, Brasilien. Ark. Zool., Stockholm **2** 1951 no. 3 pp. 457–581, 25 figs.

2164.—Papp, C. S. Deux nouveaux Chrysomélides (Col.) nord-africains. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 81–84, 2 figs.

2165.—Papp, C. S. Eine neue *Euscelus*-Art aus Columbien (Col. Curculionidae). Ent. Ber., Amsterdam **13** 1951 pp. 203–205, 1 fig.

2166.—Papp, C. S. Zwei neue *Cryptocephalus* aus Afrika (Col. Chrysom.). Eos, Madrid **27** 1951 pp. 93–95, 1 fig.

2167.—Papp, C. S. Drei neue Chrysomelidae aus Südamerika (Coleopt.). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 201–206, 3 figs.

2168.—Papp, C. S. Some new Phytophaga from South-America and India. Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 131–133, 2 figs. [Col.]

2169.—Paramonov, S. J. Notes on Australian Diptera (VI–VIII). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 745–779.

2170.—Paramonov, S. J. On two South American species of *Walkeromyia* Param. (Bombyliidae, Diptera). Rev. Ent., Rio de Janeiro **22** 1951 pp. 353–356.

2171.—Paramonow, S. J. Bestimmungstabelle der palaearktischen Arten der Gattung *Rhynchocephalus* (Nemestrinidae, Diptera). Zool. Anz., Leipzig **146** 1951 pp. 118–127.

2172.—Pardo Alcaide, A. Estudios sobre Meloidae. III. Una nueva especie de *Meloe* de la isla de Tenerife y comentarios sobre algunos Meloideos de la citada isla. Eos, Madrid **27** 1951 pp. 249–255, 2 figs. [Col.]

2173.—[Parfent'ev, V. Ya.] The house grinder *Anobium pertinax* L. (Coleoptera, Anobiidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 31–40, 8 figs.

2174.—Park, O. New species of Nearctic Pselaphid beetles and a revision of the genus *Cedius*. Bull. Chicago Acad. Sci. **8** 1949 pp. 315–343, 8 pls. [Col.]

2175.—Park, O. Cavernicolous Pselaphid beetles of Alabama and Tennessee, with observations on the taxonomy of the family. Mus. Pap. Alabama Mus. nat. Hist., Tuscaloosa no. 31 1951 107 pp. 18 figs. [Col.]

2176.—Park, O., **Auerbach,** C. & **Corley,** G. The tree-hole habitat with emphasis on the Pselaphid beetle fauna. Bull. Chicago Acad. Sci. **9** 1950 pp. 19–56, 6 pls. 3 figs.

2177.—Park, O. & **Edgren,** R. A. The second record of predation on Pselaphid beetles. Nat. Hist. Misc., Chicago no. 54 1950 2 pp. [Col.]

Park, O. W. *see* Polhemus & Park.

2178.—Park, T. & **Frank,** M. B. "Paddle": a sex-linked, recessive gene of *Tribolium castaneum* Herbst. Amer. Nat., New York **85** 1951 pp. 313–318, 1 fig. [Col.]

Park, T. *see* Birch, Park & Frank; Leslie & Park.

2179.—Parker, H. L. Notes on *Pycnocephalus argentinus* Brèthes, parasitic on *Ceroplastes* sp. in Uruguay (Coleoptera, Cybocephalidae). Proc. ent. Soc. Washington **53** 1951 pp. 35–41, 3 pls. 1 fig.

2180.—Parmenter, L. Notes on the genus *Empis* (Dipt., Empididae) in Britain. Ent. mon. Mag., London **87** 1951 pp. 41–44.

2181.—Parmenter, L. Flies taken in a light trap. Ent. mon. Mag., London **87** 1951 pp. 249–250. [Dipt.]

2182.—Parmenter, L. Diptera. Notes on the distribution of Pallopteridae in Britain. Ent. Rec., Bishops Stortford, Herts **63** 1951 pp. 304–306.

2183.—Parmenter, L. Flies visiting fennel, *Foeniculum vulgare* Mill. (Umbelliferae). J. Soc. Brit. Ent., Bournemouth **4** 1951 pp. 41–42. [Dipt.]

Parr, W. J. *see* Speyer & Parr.

2184.—Parrot, L. Notes sur les phlébotomes. LXI–LXIII. Arch. Inst. Pasteur Algér., Algiers **29** 1951 pp. 28–45, 129–133, 2 figs., 300–304. [Dipt.]

2185.—Parrott, A. W. New Zealand Ichneumonidae. Paper no. 1. The genus *Netelia* Gray (*Paniscus* of

authors) (Tryphoninae : Phytodietini). Trans. roy. Soc. N.Z., Dunedin **79** 1951 pp. 286–293, 4 pls. [Hym.]

2186.—Parry, D. A. Factors determining the temperature of terrestrial arthropods in sunlight. J. exp. Biol., London **28** 1951 pp. 445–462, 8 figs.

2187.—Parshley, H. M. On the life of William T. Davis. Ent. News, Lancaster, Pa. **62** 1951 pp. 84–86.

Pascal, M. *see* Legay & Pascal.

Pašek, V. *see* Patočka & Pašek.

2188.—Pasquale, A. di. La manifestazione nell'occhia connessa con in (3R) Me di *Drosophila melanogaster*. R.C. Ist. lombardo, Milan **83** 1950 Cl. Sci. math. nat. pp. 425–443, 12 figs. [Dipt.]

Pasquale, A. di *see* Barigozzi & Pasquale.

2189.—Pasteels, J. Enquêtes sur les Strepsiptères (2e série). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 75–77, 1 fig. [Col.]

2190.—Pasteels, J. Notules sur des Hyménoptères Symphytes (6e série). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 133–135, 1 fig.

2191.—Pasteels, J. Sur quelques Tenthredinoidea africains. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 195–205. [Hym.]

2192.—Pastrana, J. A. Dos nuevas especies de Orneodidae de la Argentina y Paraguay (Lep.). An. Soc. cient. argent., Buenos Aires **152** 1951 pp. 116–126, 9 figs.

2193.—Pastrana, J. A. Una nueva peste en araucarias de Misiones (República Argentina) Lepidoptera-Grapholitidae. Rev. Invest. agric., Buenos Aires **4** (1950) 1951 pp. 243–244, 2 pls.

2194.—Patočka, J. The fir budworm *Epiblema nigricana* and its ecology. Acta Soc. zool. bohemoslov., Prague **14** 1950 pp. 77–96, 44 figs. [Lep.]

2195.—Patočka, J. Contribution à la morphologie et au système des Pyralidides. [In Czech with French summary.] Ent. Listy, Brno **13** 1951 pp. 107–109, 9 figs. [Lep.]

2196.—Patočka, J. & **Pašek,** V. Contributions to the biology and ecology of the leaf-roller *Semasia rufimitrana* H.-S. (Lep., Tortricidae). Rozpr. české Akad., Prague **59** (1949) 1950 no. 30, 10 pp. 9 figs. [in Czech]. English summary in Bull. int. Acad. Pragae **50** 1951 pp. 405–410, 4 pls.

2197.—Patrizi, S. Contribuzioni alla conoscenza delle formiche e dei mirmecofili dell'Africa orientale. VII. *Jeanneliusa giaquintoi* n. sp. e note circa il genere *Dorylocratus* Wasm. (Coleoptera Staphylinidae). Boll. Ist. Ent. Bologna **18** 1951 pp. 259–267, 8 figs.

2198.—Patterson, E. K., **Dackerman,** M. E. & **Schutz,** J. Peptidase activities of extracts of salivary gland of *Drosophila melanogaster*. J. gen. Physiol., Baltimore **32** 1949 pp. 607–622 figs. [Dipt.]

2199.—Patterson, E. K., **Dackerman,** M. E. & **Schultz,** J. Peptidase increase accompanying growth of the larval salivary gland of *Drosophila melanogaster*. J. gen. Physiol., Baltimore **32** 1949 pp. 623–645 figs. [Dipt.]

Patton, R. L. *see* Bettini, Sarkaria & Patton ; Sarkaria, Bettini & Patton.

2200.—Paulian, R. Révision des *Orphnus* africains (Col. Scarabaeidae). Ann. Soc. ent. France, Paris **117** 1951 75 pp., 99 figs.

2201.—Paulian, R. Recherches sur les insectes d'importance biologique à Madagascar. XI. Sur quelques Coléoptères Scolytides de la région de Tananarive. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 27–31, 8 figs.

2202.—Paulian, R. Faune des eaux douces de Madagascar. Plécoptères et Mégaloptères. Mém. Inst. sci. Madagascar, Tananarive **6A** 1951 pp. 53–61, 25 figs.

2203.—Paulian, R. Etudes sur les Lépidoptères malgaches II. Nouveaux Satyrides. Mém. Inst. sci. Madagascar, Tananarive **6A** 1951 pp. 387–394, 9 figs.

2204.—Paulian, R. Papillons communs de Madagascar. Publ. Inst. Rech. sci. Tananarive Hors Sér. 1951 90 [+1] pp. 41 pls. (6 col.) 5 figs. [Lep.]

2205.—Paulian, R. Sur quelques Membracides de Côte d'Ivoire et du Sénégal (Homoptera). Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 177–183, 7 figs.

2206.—Paulian, R. Les Histerides (Col.) de la réserve forestière du Banco (Côte d'Ivoire). Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 185–191, 1 fig.

2207.—Paulian, R. Les *Scapidiolum* Achard d'Afrique noire (Col. Scaphidiidae). Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 193–200.

2208.—Paulian, R. & **Bernardi,** G. Les *Eurema* de la région malgache (Lep. Pieridae). Nat. malgache, Tananarive **3** 1951 pp. 139–154, 2 figs.

2209.—Pavan, C., **Cordeiro,** A. R., **Dobzhansky,** N. & T., **Malogolowkin,** C., **Spassky,** B. & **Wedel,** M. Concealed gene variability in Brazilian populations of *Drosophila willistoni*. Genetics, New York **36** 1951 pp. 13–30. [Dipt.]

Pavan, C. *see* Dreyfus, Nonato, Breuer & Pavan ; Nonato & Pavan.

2210.—Pavan, M. Ricerche sperimentale sul comportamento degli Artropodi. II, III. Boll. Zool. bagrar. bachic., Turin **17** 1951 pp. 3–22, 1 pl., 131–148, 3 pls. 10 figs.

2211.—Pavan, M. Sull'attività insetticida della iridomirmecina. Mem. Soc. ent. ital., Genoa **30** 1951 pp. 107–132, 2 figs. [Hym.]

2212.—[Pavel'eva, M. S.] Contribution to the question of the changing of the bivoltine form of the oak silkworm into the monovoltine one. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **16** 1951 pt. 3 pp. 23–28. [Lep.]

2213.—[Pavlovskiĭ, E. N.] A method of fixing organs of insects that turn themselves inside out or project outwards. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 298–302, 3 figs.

2214.—Pawelska, K. Introductory studies of beetles of the Elateridae (Col.). [In Polish with Russian and English summaries.] Ann. Univ. M. Curie-Skłodowska, Lublin Sect. C **5** 1951 pp. 307–320, 2 figs.

2215.—Pax, F. Alter und Herkunft der Tierbevölkerung im Glatzer Schneegebirge. Jber. schles. Ges. vaterl. Cult., Breslau **116** (1943) 1944 pp. 37–61.

2216.—Pax, F. & **Wulfert,** K. Die Thermalfauna des Riesengebirges. Lotos, Prague **88** 1942 pp. 45–65, 8 figs.

Pax, F. *see* Zavřel & Pax.

2217.—Peacock, A. D. Studies in Pharaoh's ant *Monomorium pharaonis* (L.). (5) Pupal and adult sex ratios. Ent. mon. Mag., London **87** 1951 pp. 185–191. [Hym.]

2218.—Pearce, E. J. A revision of the British species of the genus *Bibloplectus* Reitter (Col., Pselaphidae) with descriptions of two species new to science. Ent. mon. Mag., London **87** 1951 pp. 65–83, 16 figs.

2219.—Pearce, E. J. Further considerations on the speciation within the genus *Bibloplectus* Reitter (Col., Pselaphidae). Ent. mon. Mag., London **87** 1951 pp. 136–138.

2220.—Pearce, E. J. A preliminary list of the aquatic Coleoptera of Brecon, Radnor, and Monmouth. J. Soc. Brit. Ent., Bournemouth **3** 1951 pp. 262–267.

2221.—Pearman, J. V. Additional species of British Psocoptera. Ent. mon. Mag., London **87** 1951 pp. 84–89, 3 figs.

2222.—Pearson, H. R. Contribuição ao conhecimento do gênero *Mimallo* Huebner, 1920 (Lepidoptera, Mimallonidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 315–332, 59 figs.

2223.—Pegazzano, F. Un Diaspino nuovo per la fauna palearctica : *Pseudaonidia poeoniae* Cockll. (Hemiptera, Coccidae). Redia, Florence **34** 1949 pp. 233–235.

2224.—Pegazzano, F. Contributo alla conoscenza del reale pericolo rappresentato dal carattere polifago dell'*Aspidiotus perniciosus* Comst. Redia, Florence **36** 1951 pp. 251–265. [Hem.]

2225.—Pegazzano, F. Contributo alla conoscenza morfo-biologica del *Mytilococcus destefanii* Leon. (Hemiptera, Coccidae, Diaspinae). Redia, Florence **36** 1951 pp. 291–299, 3 figs.

2226.—Peking, F. Ein praktischer Zucht- und Anflugbehälter. Ent. Z., Frankfurt a. M. **60** 1950 pp. 21–22.

2227.—Peking, F. Ueber Frassarten und -bilder der Raupen. Ent. Z., Frankfurt a. M. **61** 1951 pp. 67–69, 1 pl. 4 figs. [Lep.]

2228.—Pelikán, J. Contribution to the knowledge of *Poecilothrips albopictus* Uzel. Ent. Listy, Brno **13** 1951 pp. 152–163, 19 figs. [Thysanopt.]

2229.—Pelikán, J. On carnation thrips, *Taeniothrips dianthi* Priesner. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 5–38, 24 figs. [Thysanopt.]

2230.—Pelikán, J. A new *Taeniothrips* A.S. from Czechoslovakia (Thysanoptera). Ent. Listy, Brno **14** pp. 59–62, 3 figs.

2231.—Pelikán, J. On *Hoplandrothrips bispinosus* Pr. (Thysanoptera corticicola IV). Ent. Listy, Brno **14** 1951 pp. 153–158, 7 figs.

2232.—Pelikán, J. Additional notes on Czechoslovak Thysanoptera. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 158–161.

2233.—Pelikán, J. Description of the first larva of *Cryptothrips nigripes* (O. M. Reut.) (Thysanoptera corticicola II). Sborn. Kl. přír. Brné **29** 1951 pp. 68–71, 4 figs.

2234.—Pellegrino, J. & **Brener,** Z. Sôbre uma mutação observada no *Psammolestes coreodes* Bergroth, 1911 (Hemiptera, Reduviidae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 565–566.

Pellegrino, J. *see* Schreiber & Pellegrino.

2235.—Pendergrast, J. G. The genus *Rhopalimorpha* Dallas (Hemiptera–Heteroptera) with a description of a new species. Rec. Auckland Inst. Mus. **4** 1950 pp. 31–34, 4 figs.

Penman, H. L. *see* Johnson & Penman.

2236.—Penn, G. H. Seasonal variation in the adult size of *Pachydiplax longipennis* (Burmeister) (Odonata, Libellulidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 193–197.

2237.—Penn, G. H. Additional records of aquatic Hemiptera in Louisiana. I. Nepidae, Hydrometridae and Naucoridae. Proc. La Acad. Sci., Baton Rouge **14** 1951 pp. 67–71.

2238.—Penn, G. H. A brief chronology of the history of entomology in Louisiana. Proc. La Acad. Sci., Baton Rouge **14** 1951 pp. 72–87.

2239.—Pennak, R. W. Description of the imago of the mountain midge *Deuterophlebia coloradensis* Pennak (Diptera, Deuterophlebiidae). Amer. Mus. Novit., New York no. 1534 1951 11 pp. 3 figs.

2240.—Pennington, K. M. Description of female of *Lepidochrysops swanepoeli* Penn. (Lepidoptera, Rhopalocera) and variation in male. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 148–149.

2241.—Pennypacker, M. Large "anal gill" chromosomes of a Chironomid larva. J. Hered., Washington **41** 1950 pp. 155, 164, 1 fig. [Dipt.]

2242.—Perdeck, A. C. Ervaringen met veldsprinkhanen. Levende Natuur, Amsterdam **54** 1951 pp. 165–172, 2 figs. [Orth.]

2243.—[Peredel'skiĭ, A. A.] Fondements biologiques de la théorie et de la pratique de la lutte contre *E. integriceps*. [In Russian; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 89–270, 2 figs., 31 tabl. [Hem.]

2244.—Pereira Barretto, M. Estudos sôbre Tabânidas brasileiros.—XII–XIII. An. Fac. Med. Univ. S. Paulo **25** 1951 pp. 77–87, 2 pls., 89–99, 2 pls. [Dipt.]

2245.—Pereira Barretto, M. Chaves para os Flebótomos brasileiros (Diptera, Psychodidae). An. Fac. Med. Univ. S. Paulo **25** 1951 pp. 101–117, 3 figs.

2246.—Pereira Barretto, M. Nova contribuição para o estudo da distribuição geográfica dos flebótomos americanos (Diptera, Psychodidae). Arq. Hig. Saúde públ., São Paulo **15** (1950) 1951 pp. 211–226.

2247.—Pereira Barretto, M. Duas novas espécies de flebótomos brasileiros (Diptera, Psychodidae). Folia clin. biol., São Paulo **16** (1950) 1951 pp. 143–149, 7 figs.

2248.—Pereira Barretto, M. Uma questão de nomenclatura: *Phlebotomus* ou *Flebotomus*? Folia clin. biol., São Paulo **16** (1950) 1951 pp. 199–202.

2249.—Pereira Barretto, M. Estudos sôbre Tabânidas brasileiros XI. Sôbre a validade nomenclatural dos nomes genéricos em "Colleção de Tabânidas, Instituto Oswaldo Cruz em Manguinhos, Rio de Janeiro, 1909" (Diptera, Tabanidae). Papéis avulsos Dep. Zool., São Paulo **9** 1950 pp. 61–68.

2250.—Pereira Barretto, M. & **Coutinho,** J. O. Sôbre o *Anopheles* (*Kerteszia*) *cruzii* Dyar e Knab e o *Anopheles* (*Kerteszia*) *laneanus* Corrêa e Cerqueira (Diptera, Culicidae). Arq. Hig. Saúde públ., São Paulo **15** (1950) 1951 pp. 177–180.

2251.—[Perfil'ev, P. P.] The morphology of the first instar larvae of sandflies of the Crimea. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 99–119, 14 figs. [Dipt.]

2252.—Peris, S. V. Descripciones preliminares de nuevos Rhiniini (Dipt. Calliphoridae). Eos, Madrid **27** 1951 pp. 237–247.

2253.—Perkins, R. C. L. On the Hymenopterous genera *Trichogramma* Westw., and *Pentarthron*, Riley. Trans. ent. Soc. London **1913** 1914 pp. 603–605, 1 pl.

2254.—Perttunen, V. The humidity preferences of various Carabid species (Col., Carabidae) of wet and dry habitats. Ann. ent. fenn., Helsinki **17** 1951 pp. 72–84, 3 figs.

2255.—Petersen, A. Rettelser og tilføjelser til "Bidrag til de danske Simuliers naturhistorie". Ent. Medd., Copenhagen **25** 1951 pp. 446–448. [Dipt.]

2256.—Petersen, B. Notes on Scandinavian Rhopalocera. Trans. S. London ent. nat. Hist. Soc. **1950-51** 1951 pp. 107–111, 1 fig. [Lep.]

2257.—Peterson, A. Larvae of insects. An introduction to Nearctic species. Part II. Coleoptera, Diptera, Neuroptera, Siphonaptera, Mecoptera, Trichoptera. Columbus, Ohio, The Author 1951 v & 416 pp. 104 pls. multigr.

2258.—Peterson, D. G. & **Brown,** A. W. A. Studies of the responses of the female *Aëdes* mosquito. Part III. The response of *Aëdes aegypti* (L.) to a warm body and its radiation. Bull. ent. Res., London **42** 1951 pp. 535–541, 1 pl. 1 fig. [Dipt.]

2259.—Petit, C. Le rôle d'isolement sexuel dans l'évolution des populations de *Drosophila melanogaster*. Bull. biol., Paris **85** 1951 pp. 392–418, 3 figs. [Dipt.]

2260.—Petit, C. Le rôle de l'isolement sexuel dans l'évolution des populations de *Drosophila melanogaster*. C.R. Acad. Sci., Paris **232** 1951 pp. 2482–2484, 1 fig. [Dipt.]

2261.—[Petrishcheva, P. A.] Annual changes in the composition of the species and in the abundance of sandflies. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 121–129. [Dipt.]

2262.—[Petrishcheva, P. A. & **Gubar',** V. V.] On the breeding of *Phlebotomus* in colonies of the large gerbille (*Rhombomys opimus* Licht.). [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 242–245. [Dipt.]

2263.—Peus, F. Von. Eine neu entdeckte Rasse des *Euctenophthalmus obtusus* Jord. & Roths. aus dem Jeseníky (Altvatergebirge). Acta Soc. zool. bohemoslov., Prague **15** 1951 pp. 235–239, 5 figs. [Siphonapt.]

2264.—Pfeffer, A. Bibliographie entomologique de la Bohême, de la Moravie et de la Silésie pour les années 1800–1940. Acta Soc. ent. Čsl., Prague **47** 1950 pp. 231–356.

2265.—Pfeffer, A. Les Bostryches dans les Jeseníky. Notulae ipidologicae VII. [In Czech with French summary.] Ent. Listy, Brno **13** 1951 pp. 72–78. [Col.]

2266.—Pfitzer, D. W. A new species of *Smithistruma* from Tennessee (Hymenoptera : Formicidae). J. Tenn. Acad. Sci., Nashville **26** 1951 pp. 198–200, 3 figs.

2267.—Phillips, J. H. H. An annotated list of Hemiptera inhabiting sour-cherry orchards in the Niagara Peninsula, Ontario. Canad. Ent., Ottawa **83** 1951 pp. 194–205.

2268.—Pic, M. Entomological expeditions to Abyssinia, 1926–27 and 1948–49. Coleoptera, Anthicidae. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 125–136, 4 figs.

2269.—Pic, M. Nouveaux Bruchides (Coleoptera) de l'Afrique australe. Ann. Transv. Mus., Pretoria **21** 1951 pp. 427–428.

2270.—Pic, M. Contribution à l'étude du peuplement de la Mauritanie. Coléoptères divers. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 798–801.

2271.—Pic, M. Coléoptères rares ou nouveaux d'Afrique. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1099–1102.

2272.—Pic, M. Sur le genre *Malacogaster* Bassi (Col. Drilidae). Bull. Soc. Sci. nat. Maroc, Rabat **29** (1949) 1951 pp. 295–297.

2273.—Pic, M. Coléoptères phytophages africains nouveaux. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 85–86.

2274.—Pic, M. Deux nouveaux *Anthicus* Payk. du Sahara marocain (Col. Hétéromères). C.R. Soc. Sci. nat. Maroc, Rabat **1951** 1951 no. 3 pp. 37–38.

2275.—Pic, M. Résultats de la Mission Zoologique Suisse au Cameroun. Malacodermes Hétéromères vesicants et Phytophages (p.p.). Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 pp. 217–222.

2276.—Pic, M. Etude abrégée sur les Mégalopides du Congo (Col. Phytophages). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 24–48.

2277.—Pic, M. Nouveaux Coléoptères de l'ouest africain. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 201–210.

Picard, J. *see* Bernardi, Herbulot & Picard.

2278.—Piepho, H. & **Meyer,** H. Reaktionen der Schmetterlingshaut auf Häutungshormone. Biol. Zbl., Leipzig **70** 1951 pp. 252–260, 2 figs. [Lep.]

2279.—Pierantoni, U. La simbiosi in *Tropidothorax leucopterus* (Heteroptera Lygaeidae). Boll. Zool., Torino **18** 1951 pp. 1–3.

2280.—Pierantoni, U. Die physiologische Symbiose der Termiten mit Flagellaten und Bakterien. Naturwissenschaften, Berlin **38** 1951 pp. 346–348, 4 figs. [Isopt.]

2281.—Pierce, W. D. Fossil arthropods from onyx-marble. 4. Hot calcareous waters killing insects. Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 34–49, 5 pls.

2282.—Pierre, F. Les conditions écologiques et le peuplement des vases d'eau douce. Encyl. biogéogr. écol., Paris **6** 1951 104[+5] pp. 31 figs.

2283.—Piet, D. De biologie van *Sisyphus schaefferi* (L.) (Coleoptera, Scarabaeidae). Bijdr. Dierk., Leiden **28** 1949 pp. 353–356.

2284.—Pilleri, G. Studi morfologici e sistematici sul genere *Anisoplia* Serv. (Col. Scarabeidae). V contributo. Eos, Madrid **27** 1951 pp. 235–236, 2 pls.

2285.—Pinney, E. C. G. The dragonflies of southern Africa. Transv. Mus. Mem., Pretoria no. 5 1951 335 pp. 30 pls.

Piontkovskaya, S. P. *see* Sergeev & Piontkovskaya.

Piternick, L. K. *see* Goldschmidt, Hannah & Piternick.

2286.—Pittioni, B. Das Problem der Formenbildung. Ein Deutungsversuch mit Hilfe der klimaökologischen Formel. Bonn. zool. Beitr. **1** (1950) 1951 pp. 254–261. [Hym.]

Piza *see* Toledo Piza.

2287.—Plate, H.-P. Die ökologischen Beziehungen zwischen Arthropoden und Mollusken. Z. angew. Ent., Berlin **32** 1951 pp. 406–432.

2288.—Ploeger, P. L. Trek van *Pieris brassicae* L. op Texel. Ent. Ber., Amsterdam **13** 1951 pp. 254–255. [Lep.]

2289.—Plus, N. Courbes de multiplication du virus de la sensibilité au CO_2 chez la drosophile. C.R. Acad. Sci., Paris **233** 1951 pp. 1489–1493, 1 fig. [Dipt.]

2290.—Pochon, H. Eine interessante Varietät von *Clytus arietis* L. (Col. Cerambycid.). Mitt. schweiz. ent. Ges., Berne **24** 1951 p. 111, 1 fig.

2291.—Podaný, C. Neue Formen Cerambycidarum Bulgariens. Bull. Inst. zool. Acad. bulg. Sci., Sofia **1** 1951 p. 347, 6 figs. [Col.]

2292.—Poisson, R. Mission A. Villiers au Togo et au Dahomey (1950). IV. Hémiptères Cryptocérates. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1131–1140, 2 figs.

2293.—Poisson, R. A. Contribution à l'étude des Helotrephidae, *Microvelia* Westwood (Veliidae), *Hebrus* Curtis (Hebridae) de la faune éthiopienne (Hémiptères–Hétéroptères). Comment. biol., Helsingfors **12** 1951 no. 4 pp. 1–22, 17 figs.

2294.—Poisson, R. A. Contribution à l'étude des Hydrocorises de Madagascar (Missions J. Millot 1947–1948). 2e note. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 79–130, 55 figs. [Hem.]

2295.—Polhemus, M. S., **Lush,** J. L. & **Rothenbuhler,** W. C. Mating systems in honey bees. J. Hered., Washington **41** 1950 pp. 151–155, 2 figs. [Hym.]

2296.—Polhemus, M. S. & **Park,** O. W. Time factors in mating systems for honey bees. J. econ. Ent., Menasha **44** 1951 pp. 639–642, 5 figs. [Hym.]

Pollard, C. B. *see* Harmon & Pollard.

Poncet, A. *see* Sergent & Poncet.

Pons, R. *see* Richard & Pons.

Ponte *see* Del Ponte.

2297.—Popham, E. J. A study of the changes of the water-bug fauna of North Surrey from 1946 to 1950 with special reference to the migration of Corixids. J. Soc. Brit. Ent., Bournemouth **3** 1951 pp. 268–273. [Hem.]

2298.—Popham, E. J. A short contribution towards an ecological survey of the aquatic and semi-aquatic Hemiptera–Heteroptera (water-bugs) of the British Isles. North-east Wales (Denbighshire and Merionethshire). Trans. Soc. Brit. Ent., Bournemouth **10** 1951 pp. 269–280.

2299.—Popov, G. Some new Iranian Acrididae (Orthoptera). Proc. R. ent. Soc. London (B) **20** 1951 pp. 110–120, 1 pl. 12 figs.

2300.—[Popov, V. V.] Subgenus *Plastandrena* Hedicke and its new representatives (Hymenoptera, Apoidea). [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 389–404, 6 figs.

2301.—[Popov, V. V.] On the genus *Amegilla* Friese (Hymenoptera, Apoidea). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 257–261, 5 figs.

2302.—[Popov, V. V.] Notes on the fauna of Apidae of Tadzhikistan (Hymenoptera, Apoidea). [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 688–699.

2303.—[Popov, V. V.] Geographical distribution and evolution of the Apidae of the genus *Clisodon* Patton (Hymenoptera, Anthophoridae). [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 243–252, 2 figs.

2304.—[Popova, A. A.] On the causes of migrations of Aphids. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 26–30. [Hem.]

2305.—Porter, J. C. Notes on the digger-bee, *Anthophora occidentalis*, and its inquilines. Iowa St. Coll. J. Sci., Ames **26** 1951 pp. 23–30, 19 figs. [Hym.]

2306.—Portier, P. & **Busnel,** R. G. Immunité relative de la chenille de *Deilephila euphorbiae* L. au poison des Euphorbes. Sensibilité du papillon à ce même poison. C.R. Acad. Sci., Paris **233** 1951 pp. 897–898. [Lep.]

2307.—Poschinger, F. v. *Carabus* L. (Coleoptera.) Beitrag zur Kenntnis der Lage der Arealgrenzen der ssp. *violaceus* L. und der ssp. *purpurascens* F. des *Megodontus violaceus* L. und der Biotope des *Carpathophilus linnei* Panz., im bayrischen Wald. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 105–108.

2308.—Poschinger, F. von & **Korell,** A. Weitere Vorschläge zur richtigen Fundortbezettelung. Ent. Z., Frankfurt a. M. **61** pp. 33–36.

2309.—Poulson, D. F. & **Bowen,** V. T. The copper metabolism of *Drosophila*. Science, Lancaster, Pa. **114** 1951 p. 486. [Dipt.]

2310.—Povolný, D. *Tortrix* (*Cnephasia* Curt.) *nubilana* Hbn. škůdcem meruňky na jižní Moravě. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 188–196, 2 pls. 2 figs. [Lep.]

2311.—Povolný, D. Contribution to the knowledge of the Lepidopterous fauna of the serpentine heath near Mohelno and its environs, III. Sborn. Kl. přír. Brné **29** 1951 pp. 72–75, 6 figs.

2312.—Povolný, D. & **Gregor,** F. Contributions to the knowledge of genus *Lithocolletis* Hb. Ent. Listy, Brno **13** 1951 pp. 33–36, 1 col. pl. 2 figs. [Lep.]

2313.—Povolný, D. & **Šmelhaus,** J. Contribution to the knowledge of the genus *Procris* Fabr. [In Czech and English.] Acta Soc. zool. bohemoslov., Prague **15** 1951 pp. 147–200, 1 pl. 164 figs. [Lep.]

2314.—Povolný, D. & **Šmelhaus,** J. Ceskoslovenské druhy rodu *Procris* Fabr. Ent. Listy, Brno **14** 1951 pp. 180–188, 2 col. pls. 22 figs. [Lep.]

2315.—Povolný, D. & **Zakopal,** J. Výskyt mola řepného (*Phtorimaea ocellatella* Boyd) v Madarsku. Ent. Listy, Brno **14** 1951 pp. 97–106, 1 pl. 23 figs. [Lep.]

Povolný, D. *see* Gregor & Povolný ; Miller & Povolný ; Tomšík & Povolný.

2316.—Powning, R. F., **Day,** M. F. & **Irzykiewicz,** H. Studies on the digestion of wool by insects. II. Aust. J. Sci. Res., Melbourne (B) **4** 1951 pp. 49–63, 6 figs.

2317.—Prabhaker Rao, V. Iceryine scale insects recorded from the Orient II. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 39–66, 9 pls., 127–158, 12 pls. [Hem.]

2318.—Prabhaker Rao, V. Synonymy of *Semelaspidus artocarpi* (Green) (Homoptera, Coccidae). Proc. ent. Soc. Washington **53** 1951 pp. 261–262.

2319.—Praport, M. Collembola collected in the forest-district Łobodno (near Częstochowa, Poland). [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6** 1951 pp. 135–148.

2320.—Pratap Singh Cheema. A note on the morphology of the sugarcane root-borer—*Emmalocera depressella* (Swinhoe). Indian J. Ent., New Delhi **13** 1951 pp. 79–85, 5 pls. [Lep.]

2321.—Pratt, H. D. *Ficalbia minima* (Theobald) in South Indo-China, with descriptions of the larva and pupa (Diptera, Culicidae). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 300–302, 1 fig.

2322.—Pratt, H. D. & **Lane,** jr., J. E. *Hoplopleura oryzomydis* new species, with notes on other United States species of *Hoplopleura* (Anoplura : Haematopinidae). J. Parasit., New York **37** 1951 pp. 141–146, 13 figs.

2323.—Pratt, jr., J. J. A qualitative analysis of the free amino acids in insect blood. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 573–580.

Pratt, J. J. *see* Babers & Pratt.

2324.—Prenn, F. *Lestes viridis* Vanderl (Odonatae). Procecidienbildung und Prolarve. Nachr. naturw. Mus. Aschaffenburg Heft **31** 1951 pp. 1–11, 1 pl.

2325.—Prevosti, A. Cromosomas gigantes de las glandulas salivales de cuatro especies europeas de *Drosophila*, pertencientes al grupo de la *obscura*. Genetica iberica, Madrid **2** 1950 pp. 185–192, 5 figs. [Dipt.]

2326.—Priesner, H. Thysanopterologica (XI). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 355–371.

2327.—Priesner, H. Description of the common Egyptian *Trogoderma* (Coleoptera : Dermestidae). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 133–135, 3 figs.

2328.—Priesner, H. Two new Hemiptera–Heteroptera from Egypt. Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 137–139, 1 fig.

2329.—Priesner, H. Thysanoptera. Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77 1951 pp. 3–6.

2330.—Priesner, H. Zwei neue Thysanopteren aus der Türkei. Z. PflKrankh., Stuttgart **58** 1951 pp. 256–258, 1 fig.

2331.—Prince, F. M. & **Stark,** H. E. Four new fleas of the genus *Dactylopsylla* Jordan, 1929 (Siphonaptera). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 128–139, 19 figs.

2332.—Princis, K. Kleine Beiträge zur Kenntnis der Blattarien und ihrer Verbreitung IV. Opusc. ent., Lund **16** 1951 pp. 89–93, 3 figs. [Orth.]

2333.—Princis, K. Eine neue *Pseudoglomeris* (Blatt.) von Java. Opusc. ent., Lund **16** 1951 pp. 93–94, 2 figs. [Orth.]

2334.—Princis, K. Neue und wenig bekannte Blattarien aus dem zoologischen Museum, Kopenhagen. Spolia zool. Mus. Hauniensis, Copenhagen **12** 1951 72 pp. 6 pls. [Orth.]

2335.—Princis, K. Uebersicht über die Orthopteren- und Dermapterenfauna Lettlands. Univ. Riga Wiss. Abh. XX, Kl. naturw. **1** 1943 pp. 65–96, 1 map.

2336.—Pringle, J. W. S. The excitation and contraction of the flight muscles of insects. J. Physiol., Cambridge **108** 1949 pp. 226–232, 2 pls. figs.

2337.—Pringle, J. W. S. The flight of insects. Sch. Sci. Rev., London **31** 1950 pp. 364–369, 2 figs.

2338.—Pritchard, A. E. The North American gall midges of the tribe Lestremiini ; Itonididae (Cecidomyiidae) ; Diptera. Univ. Calif. Publ. Ent., Berkeley **8** 1951 pp. 239–275, 3 figs.

2339.—Prosen, A. F. & **Martínez,** A. Algunas notas sobre Triatómidos. Misión Estud. Pat. reg. argent., Buenos Aires **22** 1951 no. 79 pp. 59–66, 1 pl., 4 figs. [Hem.]

Prosen, A. F. *see* Martínez & Prosen.

2340.—[Protzenko, A. I.] Vertical belts in the distribution of straight-winged insects (Orthoptera) on the northern slopes of the Kirghiz Ala-Tau. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **77** 1951 pp. 929–932.

2341.—Pruthi, Hem Singh. The desert locust cycle of 1940–46 in India : its progress and control. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 67–98, 4 maps. [Orth.]

2342.—Pryor, M. G. M. On the abdominal appendages of larvae of Trichoptera, Neuroptera, and Lepidoptera, and the origins of jointed limbs. Quart. J. micr. Sci., London **92** 1951 pp. 351–376, 30 figs.

2343.—Pussard, R. Observations biologiques sur *Rhytidoderes plicatus* Ol. (Col. Curculionidae). C.R. Soc. Biol., Paris **145** 1951 pp. 37–39.

2344.—[Puzanova-Maluisheva, E. V.] Life and habits of *Acanthaclisis baetica* Ramb. (Neuroptera, Myrmeleonidae) under natural and artificial conditions. [In Russian.] Ent. Obozr., Moscow **31** 1951 pp. 165–177, 8 figs.

2345.—Qadiruddin Khan, M. A contribution to a further knowledge of the structure and biology of the weevils *Sitophilus oryzae* (Linn.) and *S. granarius* (Linn.) with special reference to the effects of temperature and humidity on the rate of their development. Indian J. Ent., New Delhi **11** (1949) 1951 pp. 143–201, 81 figs. [Col.]

Quastler, H. *see* Luce, Quastler & Chase.

2346.—Quate, L. W. & **Wirth,** W. W. A taxonomic revision of the genus *Maruina* (Diptera : Psychodidae). Wasmann J. Biol., San Francisco **9** 1951 pp. 151–166, 2 pls.

Quate, L. W. *see* Arnaud & Quate.

2347.—Quentin, R. M. Sur *Leskia aurea* Fallén (Dipt. Tachinidae). Rev. franç. Ent., Paris **18** 1951 pp. 18–20, 1 fig.

2348.—Quentin, R. M. Deux *Combesius* nouveaux de Côte-d'Ivoire, (Col. Cerambycidae). Rev. franç. Ent., Paris **18** 1951 pp. 163–165, 2 figs.

2349.—Querci, O. Zygaenides, Hesperides e Rhopalocera del massiccio della Meta. Boll. Lab. Ent. agr. Portici **10** 1951 pp. 108–130. [Lep.]

2350.—Quézel, P. & **Verdier,** P. Etude de la résistance à la déshydratation de quelques carabiques. Feuille Nat., Paris (N.S.) **6** 1951 pp. 94–96, 1 fig. [Col.]

Quézel, P. *see* Verdier & Quézel.

2351.—Quisenberry, B. F. A study of the genus *Tephritis* Latreille in the Nearctic region north of Mexico (Diptera : Tephritidae). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 56–72, 13 figs.

2352.—Qutub-ud-din, M. The Culicine mosquitoes of Hyderabad–Deccan City and their bionomics as observed during 1943–45. Pakistan J. Hlth **1** 1951 pp. 26–32, 1 map. [Dipt.]

2353.—Qutub-ud-din, M. The sandfly fauna of Kohat-Hangu Valley, N.-W. F. P., Pakistan. Pakistan J. Hlth **1** 1951 pp. 34–36. [Dipt.]

2354.—Qutubuddin, M. *Uranotaenia mattinglyi* sp. n., a new species of mosquito (Diptera, Culicidae) from Hyderabad (Deccan), India. Proc. R. ent. Soc. London (B) **20** 1951 pp. 107–109, 1 fig.

2355.—Rabeler, W. Ueber die Raubfliegen nordhannoverscher Pflanzengesellschaften. Beitr. Naturk. Niedersachs., Hanover **4** 1950 pp. 56–58. [Dipt.]

2356.—Rabeler, W. Biozönotische Untersuchungen im hannoverschen Kiefernforst. Z. angew. Ent., Berlin **32** 1951 pp. 591–598.

2357.—[Radzivilovskaya, Z. A.] Contribution to the fauna and ecology of midges (Simuliidae) of the mountainous regions of the south-Ussuri taïga. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 131–150, 7 figs.; **12** 1950 pp. 199–224, 4 figs. [Dipt.]

2358.—Rageau, J. Phlébotomes du Cameroun. Bull. Soc. Path. exot., Paris **44** 1951 pp. 793–800, 8 figs. [Dipt.]

Rageau, J. *see* Colas-Belcour & Rageau ; Grenier & Rageau.

Rahm, U. *see* Geigy & Rahm.

2359.—Rainey, R. C. & **Waloff,** Z. Flying locusts and convection currents. Anti-Locust Bull., London no. 9 1951 pp. 51–70. [Orth.]

Rainey, R. C. *see* Waloff & Rainey.

2360.—[Rakhmanova, P. I.] The deposition of stores of fat and glycogen in the tissues of the body of the larvae of *Anopheles maculipennis messeae* Fall. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 363–366. [Dipt.]

2361.—Rakshpal, R. Development of black markings on the elytra of the lady-bird beetle (*Chilomenes sexpunctulatus* Fabr.). Indian J. Ent., New Delhi **13** 1951 pp. 99–100, 1 fig. [Col.]

2362.—Rambier, A. Populations grégaire et solitaire du criquet marocain (*Dociostaurus maroccanus* Thunb.) en France continentale. C.R. Acad. Sci., Paris **233** 1951 pp. 1491–1493, 2 figs. [Orth.]

Rambier, A. *see* Delmas & Rambier.

2363.—Rambring, H. Dagfjärilsnotiser från sommaren 1950 (Lep. Rhop.). Opusc. ent., Lund **16** 1951 pp. 15–16.

2364.—Ramme, W. Ein neuer *Sphodromerus* aus Aegypten (Orthoptera : Acrididae). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 277–278.

2365.—Ramme, W. Zur Systematik, Faunistik und Biologie der Orthopteren von Südost-Europa und Vorderasien. Mitt. zool. Mus. Berlin **27** (1950) 1951 pp. 1–431, 39 pls. (12 col.) 134 figs., 3 maps.

2366.—Ramsay, J. A. Osmotic regulation in mosquito larvae : the role of the Malpighian tubules. J. exp. Biol., London **28** 1951 pp. 62–73, 3 figs. [Dipt.]

2367.—Rao, S. N. Descriptions of two new genera and nine new and one known species of gall midges (Itonididae : Diptera) from India. Indian J. Ent., New Delhi **11** (1949) 1951 pp. 109–127, 63 figs.

2368.—Rao, S. N. & **Chandy Kurian.** Descriptions of eleven new, and records of fifteen known, species of Ichneumonoidea (Hymenoptera parasitica) from India. I, II. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 167–190, 143 figs. ; **13** 1951 pp. 65–78.

Rao, S. N. *see* Mani & Rao.

Rao *see* Prabhaker Rao.

2369.—Rasmuson, B. Ether susceptibility of two stocks of *Drosophila melanogaster*. (Abstract.) Hereditas, Lund **37** 1951 pp. 560–561, 1 fig. [Dipt.]

2370.—Rasmuson, M. Variation in inbred lines of *Drosophila melanogaster*. (Abstract.) Hereditas, Lund **37** 1951 pp. 561–563. [Dipt.]

2371.—Raw, F. The ecology of the garden chafer, *Phyllopertha horticola* (L.) with preliminary observations on control measures. Bull. ent. Res., London **42** 1951 pp. 605–646, 1 pl. 10 figs. [Col.]

2372.—Rawle, S. G. The effects of high temperature on the common clothes moth, *Tineola bisselliella* (Humm.). Bull. ent. Res., London **42** 1951 pp. 29–40, 2 pls. 4 figs. [Lep.]

2373.—Rawson, G. W. & **Hessel,** S. A. The life history of *Strymon cecrops* Fabricius (Lepidoptera, Lycaenidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 79–84, 5 figs.

2374.—Rawson, G. W., **Ziegler,** J. B. & **Hessel,** S. A. The immature stages of *Mitoura hesseli* Rawson & Ziegler (Lepidoptera, Lycaenidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 123–130, 3 figs.

2375.—Ray-Chaudhuri, S. P. & **Manna,** G. K. Evidence of a multiple sex-chromosome mechanism in a Gryllid. J. Hered., Washington **41** 1950 pp. 277–280, 2 figs. [Orth.]

2376.—Ray-Chaudhuri, S. P. & **Manna,** G. K. Chromosomal evolution in wild populations of Acrididae. Part I. On the occurrence of a supernumerary chromosome in *Aiolopus* sp. Proc. Indian Acad. Sci., Delhi **34B** 1951 pp. 55–61, 19 figs. [Orth.]

2377.—Rayment, T. Biology of the reed-bees with descriptions of three new species and two allotypes of *Exoneura*. Aust. Zool., Sydney **11** 1951 pp. 285–313, 6 pls. 2 figs. [Hym.]

2378.—Rayment, T. New bees and wasps.—Parts XV–XVI. Vict. Nat., Melbourne **68** 1951 pp. 10–13, 92–96, 111–119, 2 pls. 1 fig.

2379.—Réal, P. Trois espèces nouvelles de *Cnephasia* (Lep. Tortricidae) du sud-est de la France. Bull. mens. Soc. linn. Lyon **20** 1951 pp. 223–231, 5 figs.

2380.—Reali, G. Interferenza dei centri nervosi cefalo-toracici sull' azione dell'atropina, pilocarpina ed eserina in larve de *Galleria mellonella* L. Boll. Zool. Agrar. bachic., Turin **17** 1951 pp. 59–75, 3 pls. [Lep.]

2381.—Reclaire, A. Zesde vervolg op de naamlijst der in Nederland en omliggend gebied waargenomen wantsen (Hemiptera–Heteroptera). Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 1–24.

Redaelli, D. C. *see* Gomes Costa & Redaelli.

2382.—Reddy, D. B. Influence of the interaction of environmental factors upon the immature stages of the rice weevil. Ecology, Lancaster, Pa. **31** 1950 pp. 641–642. [Col.]

2383.—Reddy, D. B. Determination of sex in adult rice and granary weevils (Coleoptera : Curculionidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 13–16, 1 fig.

2384.—Redeke, H. C. Hydrobiologie van Nederland. De zoete wateren. Amsterdam, C. De Boor jr. 1948 580 pp. 3 pls. 46 figs. [Insects pp. 304–354.]

2385.—Rees, D. M. & **Nielsen,** L. T. Four new mosquito-records from Utah (Diptera : Culicidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 11–12.

2386.—Rees, D. M. & **Onishi,** K. Morphology of the terminalia and internal reproductive organs, and copulation in the mosquito, *Culiseta inornata* (Williston) (Diptera, Culicidae). Proc. ent. Soc. Washington **53** 1951 pp. 233–246, 2 pls. 5 figs.

2387.—Reeves, W. C. Field studies on carbon dioxide as a possible host simulant to mosquitoes. Proc. Soc. exp. Biol., New York **77** 1951 pp. 64–66. [Dipt.]

2388.—Reeves, W. C. & **Rudnick,** A. A survey of the mosquitoes of Guam in two periods in 1948 and 1949 and its epidemiological implications. Amer. J. trop. Med., Baltimore **31** 1951 pp. 633–658, 6 figs. [Dipt.]

2389.—Rehm, E. Ueber ein bisher unbekanntes Sinnesorgan der Honigbiene. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 112–116, 10 figs. [Hym.]

2390.—Rehm, M. Die zeitliche Folge der Tätigkeitsrhythmen inkretorischer Organe von *Ephestia kühniella* während der Metamorphose und des Imaginallebens. Arch. EntwMech. Org., Berlin **145** 1951 pp. 205–248, 17 figs. [Lep.]

2391.—Rehn, J. A. G. The tribal position of certain genera of the Pyrgomorphinae (Orthoptera : Acrididae). Ent. News, Lancaster, Pa. **62** 1951 pp. 241–244.

2392.—Rehn, J. A. G. Description of the previously unknown female sex of *Melliera brevipes* and synonymy of the genus *Phaeomamantis* Beier (Orthoptera ; Manteidae ; Mellierinae). Notulae Naturae, Philadelphia no. 230 1951 5 pp. 3 figs.

2393.—Rehn, J. A. G. A new species of the genus *Chlorizeina* (Acrididae ; Pyrgomorphinae) from Burma. Notulae Naturae, Philadelphia no. 238 1951 7 pp. 1 pl.

2394.—Rehn, J. A. G. Some additions to our knowledge of the Desmopterini (Orthoptera : Acrididae : Pyrgomorphinae). Proc. Acad. nat. Sci. Philadelphia **103** 1951 pp. 211–236, 2 pls. 8 figs.

2395.—Rehn, J. A. G. Three new Central American Mantoidea (Orthoptera). Trans. Amer. ent. Soc., Philadelphia **76** 1951 pp. 363–383, 3 pls.

2396.—Rehn, J. W. H. Correction to notes on some aquatic insects of the Brandywine Creek drainage, Chester County, Pennsylvania. Ent. News, Lancaster, Pa. **62** 1951 pp. 138–139. [Odon., Ephem., Trichopt.]

2397.—Rehn, J. W. H. Classification of the Blattaria as indicated by their wings (Orthoptera). Mem. Amer. ent. Soc., Philadelphia no. 14 1951 134+3 pp. 13 pls. 5 diagr.

2398.—Rehn, J. W. H. The genus *Aspiduchus* (Orthoptera : Blattidae : Blaberinae). Notulae Naturae, Philadelphia no. 231 1951 6 pp. 1 pl.

2399.—Reichardt, H. Bemerkungen zur Präparationstechnik bei Stechmücken. Zool. Anz., Leipzig **147** 1951 pp. 271–273, 3 figs. [Dipt.]

Reichardt, W. *see* Hassenstein & Reichardt.

2400.—Reichensperger, A. Ein neuer *Paussomorphus* aus Kamerun nebst einigen Bemerkungen. Ent. Bl., Krefeld **47** 1951 pp. 1–8, 4 figs. [Col.]

2401.—Reichensperger, A. Paussiden des belgischen Congogebietes. VII. Teil. Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 61–72, 8 figs. [Col.]

2402.—Reichl, E. Zur Genetik einiger Formen von *Syntomis phegea* L. (Lep., Syntomidae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 83–88.

2403.—Reid, W. Records of a moth trap in Sheffield, 1950. Entomologist, London **84** 1951 pp. 78–82.

2404.—Reinhard, H. J. New American Muscoid Diptera. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 1–9.

2405.—Reisser, H. Notizen zur Lepidopterenfauna von Niederösterreich. Z. wien. ent. Ges., Vienna **36** 1951 pp. 117–119.

2406.—Remane, R. *Nabis* (*Reduviolus*) *pseudoferus* nova species, eine neue deutsche *Nabis*–Art. Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 63–68, 5 figs. [Hem.]

2407.—Remaudière, G. Contribution à l'étude des Aphidoidea de la faune française. Aphididae : Dactynotinae et Myzinae. Rev. Path. vég. Ent. agric. Fr., Paris **30** 1951 pp. 125–142, 1 fig. [Hem.]

2408.—Remington, C. L. & others. Geographic subspeciation in the Lepidoptera. Lepidopt. News, Connecticut **5** 1951 pp. 17–35, 5 figs., 2 maps.

2409.—Remotti, E. Forme macro-e microadeniche in *Anopheles maculipennis*. Boll. Soc. ital. Biol. sperim., Naples **26** (1950) 1951 pp. 1314–1316. [Dipt.]

2410.—Rempel, J. G. A study of the embryology of *Mamestra configurata* (Walker) (Lepidoptera, Phalaenidae). Canad. Ent., Ottawa **83** 1951 pp. 1–19, 6 pls. 2 figs.

Rempel, J. G. *see* Fredeen, Rempel & Arnason.

2411.—Renaud, L. La croissance biochimique de *Carausius morosus*. Bull. Soc. zool. France, Paris **76** 1951 pp. 22–29, 5 graphs. [Orth.]

2412.—Rendel, J. M. Mating of ebony vestigial and wild type *Drosophila melanogaster* in light and dark. Evolution, Lancaster, Pa. **5** 1951 pp. 226–230. [Dipt.]

Renjhen, P. L. *see* Batra & Renjhen.

2413.—Rethier, V. G. The limiting mechanism in tarsal chemoreception. J. gen. Physiol., Baltimore **35** 1951 pp. 55–65, 3 figs.

2414.—Reuss, T. On the changeability of eye colour in *Gonepteryx rhamni* L. in correlation with different degrees of physical and psychical activity. Z. Lepid., Krefeld **1** 1951 pp. 101–105.

Reyes *see* Junco y Reyes.

2415.—Reymond, A. Premiers résultats d'un voyage dans le Grand Erg Occidental et de recherches dans la région de Beni-Abbès et de la vallée de la Saoura. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 49–79.

2416.—Reymond, A. Premiers résultats entomologiques de missions accomplies dans le Moyen Atlas septentrional durant les années 1949–1950. Bull. Soc. Sci. nat. Maroc, Rabat **30** (1950) 1951 pp. 231–244.

2417.—Reymond, A. Récolte de Coléoptères à l'occasion des crues. C.R. Soc. Sci. nat. Maroc, Rabat **1951** 1951 no. 4 pp. 44–45.

2418.—Reyne, A. A redescription of *Ripersia corynephori* Sign. Tijdschr. Ent., Amsterdam **94** 1951 pp. 189–206, 36 figs. [Hem.]

2419.—Rezáč, M. Několik poznámek o hálkách na ryzci obecném (*Lactarius deliciosus* L.) a jejich původci. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 47–48, 5 figs. [Dipt.]

2420.—Rhodebeck, K. & **Millspaugh,** D. D. A preliminary list of the Rhagionidae (Diptera) known to occur in Iowa. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [? 1951] pp. 529–530.

2421.—Ribbands, C. R. The flight range of the honey-bee. J. Anim. Ecol., London **20** 1951 pp. 220–226. [Hym.]

2422.—Ricceri, G. Le variazioni quantitative dei singoli diaminoacidi nelle uova di *Bombyx mori* durante lo sviluppo embrionale. Boll. Soc. ital. Biol. sper., Naples **27** 1951 pp. 515–519. [Lep.]

2423.—Richard, G. Le phototropisme du termite à cou jaune (*Calotermes flavicollis* Fabr.) et ses bases sensorielles. Ann. Sci. nat., Paris Zool. (11) **12** (1950) 1951 pp. 485–603, 2 pls. 35 figs. [Isopt.]

2424.—Richard, G. & **Pons,** R. Contribution à l'étude écologique des fourmilions dans les Pyrénées-orientales. Vie et Milieu, Paris **2** 1951 pp. 381–387, 1 pl. 1 fig. [Neur.]

2425.—Richard, R. Un remarquable Curculionide malgache (Coléoptères). Nat. malgache, Tananarive **3** 1951 pp. 129–131, 5 figs.

2426.—Richards, A. G. The integument of arthropods. Minneapolis, Univ. Minnesota Press & London, Oxford Univ. Press 1951 xvi & 411 pp., 65 figs.

Richards, A. G. *see* Clausen & Richards.

2427.—Richards, O. W. Brachypterous Sphaeroceridae. Ruwenzori Expedition 1934–5. London, Brit. Mus. (Nat. Hist.) **2** 1951 no. 8 pp. 829–851, 10 figs. [Dipt.]

2428.—Richards, O. W. New species of Bethyloidea (Hymenoptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 813–820, 1 fig.

2429.—Richards, O. W. New species of Sphaeroceridae (Diptera) found with driver ants (Dorylinae) by S. Patrizi and F. Meneghetti. Boll. Ist. Ent. Bologna **18** 1950 pp. 14–23, 7 figs.

2430.—Richards, O. W. New species of the genus *Safaria* Richards and of *Sphaerocera* Latreille (Dipt. Sphaeroceridae). Boll. Ist. Ent. Bologna **18** 1951 pp. 268–271, 3 figs.

2431.—Richards, O. W. Endemic British races of Aculeate Hymenoptera. J. Soc. Brit. Ent., Bournemouth, Hants **4** 1951 pp. 1–4.

2432.—Richards, O. W. The reaction to light and its inheritance in grain-weevils, *Calandra granaria* (L.) (Coleoptera–Curculionidae). Proc. zool. Soc. London **121** 1951 pp. 311–314, 1 fig.

2433.—Richards, O. W. The 3rd Danish expedition to Central Asia. Zoological results 5. Bombidae (Insecta) from Afghanistan. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **113** 1951 pp. 191–199, 2 figs. [Dipt.]

2434.—Richards, O. W. & M. J. Observations on the social wasps of South America (Hymenoptera Vespidae). Trans. R. ent. Soc. London **102** 1951 pp. 1–169, 4 pls. 25 figs.

Richart, jr., F. E. *see* Chang & Richart ; Fair, Chang & Richart.

2435.—Richter, A. The aquatic Coleoptera of the County of Elgin. Scot. Nat., Aberdeen **63** 1951 pp. 101–121.

2436.—Richter, G. Beitrag zur Biologie von *Hylecoetus dermestoides* L. Mitt. Forstw. Forstwiss., Hannover **4** 1933 pp. 545–560, 12 figs. [Col.]

2437.—Richter, W. Zur Verbreitung der Orthopteren in Südwestdeutschland (2. Folge). Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **106** (1950) 1951 pp. 149–152.

2438.—Riek, E. F. A fossil Mecopteron from the Triassic beds at Brookvale, N.S.W. Rec. Aust. Mus., Sydney **22** 1950 pp. 254–256, 4 figs.

2439.—Říha, P. A Trichopterological sketch of the brooks in surroundings of Havlíčkův Brod. [In Czech with English summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 66–74, 1 map.

2440.—[Rikhter, A. A.] A new parasitic beetle from Transcaucasia (Coleoptera, Rhipiphoridae). [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 359–361, 1 fig.

2441.—Rindge, F. H. A change in synonymy in *Drepanulatrix* (Lepidoptera, Geometridae). J. New York ent. Soc. **59** 1951 pp. 63–64.

2442.—Ringdahl, O. Några för svenska faunan nya ögonflugor (Pipunculidae). Ent. Tidskr., Stockholm **72** 1951 pp. 37–38. [Dipt.]

2443.—Ringdahl, O. Neue Muscid̈en aus Schwedisch Lappland und Jämtland. Opusc. ent., Lund **16** 1951 pp. 33–36. [Dipt.]

2444.—Ringdahl, O. Flugor från Lapplands, Jämtlands och Härjedalens fjälltrakter (Diptera Brachycera). Opusc. ent., Lund **16** 1951 pp. 113–186.

2445.—Ringdahl, O. Eine neue *Lispocephala*-Art aus Schweden (Dipt. Musc.). Opusc. ent., Lund **16** 1951 p. 187, 1 fig.

2446.—Ripley, S. H. & **Ewer,** D. W. Peripheral inhibition in the locust. Nature, London **167** 1951 pp. 1066–1067. [Orth.]

2447.—Risbec, J. Chalcidoïdes d'A.O.F. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1110–1130, 5 figs. [Hym.]

2448.—Risbec, J. I. Les Chalcidoïdes d'A.O.F. II. Les Microgasterinae d'A.O.F. Mém. Inst. franç. Afr. noire, Dakar no. 13 1951 pp. 7–409, 179 figs., 413–473, 46 figs.

2449.—Risbec, J. Sur la reproduction de quelques Hémiptères du Sénégal. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 245–254, 6 figs.

2450.—Risbec, J. Sur les galles de Thrips de *Guiera senegalensis*. Trab. 2ª Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 255–264, 4 figs. [Thysanopt.]

2451.—Risler, H. Der Kopf von *Bovicola caprae* (Gurlt) (Mallophaga). Zool. Jb., Jena Anat. **71** 1951 pp. 325–374, 1 pl. 46 figs.

Rivers *see* La Rivers.

2452.—Rizki, M. T. M. Morphological differences between two sibling species, *Drosophila pseudoobscura* and *Drosophila persimilis*. Proc. nat. Acad. Sci. U.S.A., Washington, D.C. **37** 1951 pp. 156–159, 3 figs. [Dipt.]

2453.—Roback, S. S. A classification of the Muscoid Calyptrate Diptera. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 327–361, 7 pls., 2 figs.

2454.—Robert, P. Les pontes multiples chez le hanneton commun. 2e. Obtention de pontes successives au laboratoire. C.R. Acad. Agric. France, Paris **37** 1951 pp. 197–199. [Col.]

2455.—Robert, P. A. Les insectes. I. Coléoptères, Orthoptères, Archiptères, Névroptères. Neuchâtel & Paris, Delachaux & Niestlé 1946 209 [+3] pp. 34 pls. 74 figs.

2456.—Roberti, D. La lida del pino (*Acantholyda nemoralis* Thomson). Boll. Lab. Ent. agr. Portici **10** 1951 pp. 25–85, 24 figs. [Hym.]

2457.—Robinson, H. S. The effects of light on night-flying insects. Trans. S. London ent. nat. Hist. Soc. **1950-51** 1951 pp. 112–123, 6 figs.

Robinson, H. S. *see* Classey & Robinson.

2458.—Robinson, M. A new species of *Uroxys* from Peru (Coleoptera : Scarabaeidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 139–140, 167.

2459.—Rocca, L. Sull'identità di alcune specie di Lepidotteri diurni italiani, e sulla toponomastica in "Lepidoptera pedemontana" di L. De Prunner. Boll. Soc. ent. ital., Genoa **81** 1951 pp. 56–61.

2460.—Rockstein, M. & **Herron,** P. W. Phosphatase in the adult worker honey-bee. J. cell. comp. Physiol., Philadelphia **38** 1951 pp. 451–467, 5 figs. [Hym.]

2461.—Rockstein, M. & **Levine,** L. Enzymes in insects. Acid phosphatase. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 469–472.

2462.—Rockwood, L. P. Notes on insects associated with *Lupinus polyphyllus* Lindl. in the Pacific northwest. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 149–156.

2463.—Rodd, N. W. Notes on the biology of an Australian Trigonalid wasp (*Taeniogonalos heterodoxus* Raym.). Aust. Zool., Sydney **11** 1951 pp. 338–340, 2 pls.

2464.—Rodd, N. W. Some observations on the biology of Stephanidae and Megalyridae (Hymenopterа). Aust. Zool., Sydney **11** 1951 pp. 341–346, 2 pls. 4 figs.

2465.—[Rodendorf, B. B.] Essai pour servir à la détermination des Diptères parasites d'*Eurygaster integriceps* et des autres Pentatomides. [In Russian; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **2** 1947 pp. 75–88, 13 figs. [Hem.]

2466.—[Rodendorf, B. B.] A new species of Tachinid of the genus *Centeter* (Diptera, Larvivoridae)—parasite of an injurious far-eastern Melolonthid. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 418–419.

2467.—[Rodendorf, B. B.] A new genus and species of a Tephritid (Diptera, Trypaneidae) from the fruits of *Nitraria schoberii* L. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 423–425, 1 fig.

2468.—[**Rodendorf,** B. B.] A new species of the genus *Lonchaea* (Diptera, Lonchaeidae) from the galleries of the barkbeetle *Scolytus scolytus* Fabr. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 80–81.

2469.—[**Rodendorf,** B. B.] A new pest of watermelon—the mining-fly *Liriomyza citrulli* Rohdendorf, sp. n. (Diptera, Agromyzidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 82–84, 1 fig.

2470.—[**Rodendorf,** B. B.] The evolution of the wing and the phylogeny of *Oligoneura* (Diptera, Nematocera). [In Russian with English summary.] Trav. Inst. paléont. Acad. Sci. URSS Leningrad **13** 1946 no. 2 pp. 1–108, 16 pls. 97 figs. [Fossil.]

2471.—**Roeder,** K. D. Movements of the thorax and potential changes in the thoracic muscles of insects during flight. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 95–106, 4 figs.

2472.—**Roeder,** K. D. & **Weiant,** E. A. The effect of concentration, temperature, and washing on the time of appearance of DDT-induced trains in sensory fibres of the cockroach. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 372–380, 3 figs. [Orth.]

2473.—**Roell,** L. Digne 1949. Z. Lepid., Krefeld **1** 1951 pp. 107–113, 147–157.

2474.—**Roell,** L. Sammeltage an der französischen Riviera. Z. Lepid., Krefeld **1** 1951 pp. 113–118.

2475.—**Roepke,** W. Wat is *Acridium zehntneri* Krauss ? Ent. Ber., Amsterdam **13** 1951 pp. 349–350. [Orth.]

2476.—**Roepke,** W. The genus *Trabala* Walk. in the Far East (Lep. Het., fam. Lasiocampidae). (With the collaboration of Mr. W. H. T. Tams, British Museum Nat. Hist., London.) Meded. LandbHoogesch. Wageningen **50** 1951 pp. 105–133, 14 pls. (1 col.) 2 figs.

2477.—**Roepke,** W. Lepidoptera Heterocera, gesammelt von Dr. F. Schneider in Sumatra. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 377–400, 11 figs.

Rohdendorf *see* Rodendorf.

2478.—**Rohnert,** U. Wassererfüllte Baumhöhlen und ihre Besiedlung. Ein Beitrag zur Fauna dendrolimnetica. Arch. Hydrobiol., Stuttgart **44** 1951 pp. 472–516, 2 pls. 2 figs.

2479.—**Rohrbach,** F. Die Ohrzikade, *Ledra aurita,* und ihre Larve. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 262–265, 6 figs. [Hem.]

2480.—**Romanini,** M. G. Attività ialuronidasica del succo digestivo di *Hydrophilus piceus.* Boll. Soc. ital. Biol. sperim., Naples **27** 1951 pp. 1079–1080. [Col.]

2481.—**Romanini,** M. G. Azioni istochimicamente rivelabili del succo digestivo di *Hydrophilus piceus* su alcuni polisaccaridi. Boll. Soc. ital. Biol. sperim., Naples **27** 1951 pp. 1081–1082. [Col.]

Romeo Viamonte, J. M. *see* Viamonte & Castro.

2482.—**Ronchetti,** G. Casi di teratologia in *Blaps mucronata* Latr. e *Pterostichus multipunctatus* Dej.(Coleoptera). Atti Soc. ital. Sci. nat., Milan **89** 1950 pp. 232–241, 13 figs.

2483.—**Ronchetti,** G. & **Springhetti,** A. Un caso di ectromelia antennale in *Blaps mucronata* Latr. ♂ (Col. Tenebr.). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 25–26, 3 figs.

Rönsch, G. *see* Henke & Rönsch.

2484.—**Roonwal,** M. L. Suggestions for the labelling of locust specimens. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 23–26, 1 fig. [Orth.]

2485.—**Roonwal,** M. L., **Bhasin,** G. D., **Pant,** G. D. & **Misra,** S. D. A systematic catalogue of the main identified entomological collection at the Forest Research Institute, Dehra Dun. Parts 1–8. Indian Forester, Dehra Dun **76** 1950 pp. 498–505 ; **77** 1951 pp. 313–342 ; also Indian For. Leafl. no. 121 (pts. 1 & 2) 1951 38 pp.

Roonwal, M. L. *see* Misra, Nair & Roonwal.

2486.—**Rosenberg,** W. F. H. & **Talbot,** G. New South American butterflies. Trans. ent. Soc. London **1913** 1914 pp. 671–682. [Lep.]

2487.—Rosický, B. The influence of the outer environment on the specialisation of lice (Anoplura) to their hosts. [In Czech with English summary.] Acta Soc. zool. bohemoslov., Prague **15** 1951 pp. 115–124.

2488.—Rosický, B. The mammals in the Territory of Czechoslovakia as hosts of the fleas (Aphaniptera). [In Czech with English summary.] Sborn. Kl. přír. Brné **29** 1951 pp. 120–133.

2489.—Rösiger, E. Isolement sexuel entre deux souches de *Drosophila melanogaster*. Experientia, Basle **7** 1951 pp. 178–179. [Dipt.]

2490.—Rosin, S. Zur Entwicklungsphysiologie der Mutante Pearl (Pl) von *Drosophila melanogaster*. Rev. suisse Zool., Geneva **58** 1951 pp. 398–403, 3 figs. [Dipt.]

2491.—Ross, E. S. Three new African Embiidae (Embioptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 381–389, 3 figs.

2492.—Ross, E. S. A new species of Embioptera from Oceania. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 307–310, 1 fig.

2493.—Ross, H. H. The origin and dispersal of a group of primitive caddisflies. Evolution, Lancaster, Pa. **5** 1951 pp. 102–115, 15 figs. [Trichopt.]

2494.—Ross, H. H. Phylogeny and biogeography of the caddisflies of the genera *Agapetus* and *Electragapetus* (Trichoptera : Rhyacophilidae). J. Wash. Acad. Sci., Baltimore **41** 1951 pp. 347–356, 23 figs.

2495.—Ross, H. H. The caddisfly genus *Anagapetus* (Trichoptera : Rhyacophilidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 140–144, 4 figs.

2496.—Ross, H. H. The Trichoptera of Lower California. Proc. Calif. Acad. Sci., San Francisco (4) **27** 1951 pp. 65–75, 3 figs.

2497.—Ross, H. H. New American species of *Cernotina* (Trichoptera). Rev. Ent., Rio de Janeiro **22** 1951 pp. 343–348, 7 figs.

2498.—Ross, J. A study of some British species of *Synergus* (Hymenoptera, Cynipoidea). Trans. Soc. Brit. Ent., Bournemouth **2** 1951 pp. 81–96.

2499.—Rossi, L. La membrana di tensione superficiale e la locomozione di alcuni invertebrati acquatici. Natura, Milan **42** 1951 pp. 81–89.

2500.—Röszler, P. Myrmecologisches aus dem Jahre 1938. Zool. Anz., Leipzig **146** 1951 pp. 88–96. [Hym.]

2501.—Roth, L. M. Loci of sensory end-organs used by mosquitoes (*Aedes aegypti* (L.) and *Anopheles quadrimaculatus* Say) in receiving host stimuli. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 59–74, 6 figs. [Dipt.]

2502.—Roth, L. M. & **Willis,** E. R. Hygroreceptors in adults of *Tribolium* (Coleoptera, Tenebrionidae). J. exp. Zool., Philadelphia **116** 1951 pp. 527–570, 7 pls. 3 figs.

2503.—Roth, L. M. & **Willis,** E. R. Hygroreceptors in Coleoptera. J. exp. Zool., Philadelphia **117** 1951 pp. 451–487, 2 pls. 46 figs.

2504.—Roth, L. M. & **Willis,** E. R. The effects of desiccation and starvation on the humidity behavior and water balance of *Tribolium confusum* and *Tribolium castaneum*. J. exp. Zool., Philadelphia **118** 1951 pp. 337–361, 4 figs. [Col.]

2505.—Roth, P. Les *Sphecius* paléarctiques (Hym. Sphegidae). Ann. Soc. ent. France, Paris **118** 1951 pp. 79–94, 33 figs.

Rothenbuhler, W. C. *see* Polhemus, Lush & Rothenbuhler.

2506.—Roubal, J. *Sarothamnus scoparius* Wimm. au point de vue de la vie coléoptérologie notamment en Bohême. II. [In Czech.] Acta ent. Mus. nat. Pragae **26** 1948 no. 353, 45 pp.

2507.—Roubal, J. Miscellanea coleopterologica bohemica. [In Czech and Latin.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 32–33.

2508.—Roubal, J. *Pityophthorus carniolicus* Wichm. in Bohemia. Ent. Listy, Brno **13** 1951 pp. 166–167. [Col.]

2509.—Roubal, J. Bisherige Kenntnisse über *Eicolyctus brunneus*

Gyll. und über seine Entdeckung in der Čechoslovakei. Notul. ent., Helsinki **31** 1951 pp. 57–59. [Col.]

2510.—Rozeboom, L. E. A new species of *Anopheles* from the Philippine Islands (Diptera : Culicidae). J. Parasit., Lancaster, Pa. **37** 1951 pp. 502–506, 1 pl.

Rozeboom, L. E. *see* Komp & Rozeboom ; Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

2511.—Rozen, J. G. A preliminary study of the male genitalia of Andrenidae (Hymenoptera, Apoidea). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 142–150, 4 pls.

2512.—[Rubtzov, I. A.] The Columbatz midge. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 410–417, 2 figs. [Dipt.]

2513.—[Rubtzov, I. A.] Contribution to the biology and ecology of midges (Simuliidae) of Central Asia. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **13** 1951 pp. 328–342. [Dipt.]

2514.—Rudebeck, G. Ett par iakttagelser rörande massflyttning av *Pyrameis atalanta* L. och några reflexioner i samband därmed. Opusc. ent., Lund **16** 1951 pp. 49–54, 1 map. [Lep.]

Rudnick, A. *see* Reeves & Rudnick.

2515.—Ruffo, S. Descrizione di due nuovi Catopidi cavernicoli del Veronese e osservazioni sul genere *Neobathyscia* Müll. Mem. Mus. Stor. nat. Verona **2** (1949–50) [?1951] pp. 125–133, 4 figs. [Col.]

2516.—Ruiter, L. de, **Wolvekamp,** H. P. & **Tooren,** A. J. van. Experiments on the respiration of some aquatic insects (*Hydrous piceus* L., *Naucoris cimicoides* L. and *Notonecta glauca* L.). Acta physiol. pharmacol. neerl., Amsterdam **1** (1950) 1951 pp. 657–659. [Col., Hem.]

2517.—[Ruivkin, B. V.] *Telenomus verticillatus* Kieffer (Hymenoptera, Scelionidae) — a parasite of the eggs of the pine silk-spinner. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 71–76.

Rumek, A. *see* Kałkowski, Rumek, Franckiewicz & Wojtusiak.

2518.—[Rumsh, L. T.] Mosquitoes of the north of the USSR. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 87–95. [Dipt.]

2519.—[Rumsh, L. T.] Contribution to the fauna of mosquitoes of Kamchatka. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1948 pp. 96–98. [Dipt.]

2520.—Rungs, C. Un nouvel Arctiide tunisien (Lep.). Bull. Soc. ent. France, Paris **56** 1951 pp. 99–101, 1 fig.

2521.—Ruppel, R. F. & **DeLong,** D. M. Studies of the genus *Kunzeana*. 1. Five new species of Mexican *Kunzeana*. Ohio J. Sci., Columbus **51** 1951 pp. 187–191, 1 pl.

Ruppel, R. F. *see* DeLong & Ruppel.

2522.—Ryckman, R. E. & **Arakawa,** K. Y. *Anopheles freeborni* hibernating in wood rats' nests (Diptera : Culicidae). Pan-Pacif. Ent., San Francisco **27** 1951 p. 172.

2523.—Rydén, N. Zur Kenntnis der schwedischen Blattminierer. XII. Ueber Agromyziden des Reichsmuseums. Ent. Tidskr., Stockholm **72** 1951 pp. 168–180. [Dipt.]

2524.—Rydén, N. Zur Kenntnis der schwedischen Blattminierer XI, XIII–XIV. Opusc. ent., Lund **16** 1951 pp. 41–43, 188–190, 2 figs. [Dipt.]

2525.—Saalas, U. Zur Kenntnis der früheren Entwicklungsstadien von *Carpophilus ligneus* Murray (Col., Nitidulidae). Ann. ent. fenn., Helsinki **17** 1951 pp. 65–72, 4 figs.

2526.—Saalas, U. Einiges über Charakterarten der Käferbestände an Fichten von verschiedener Beschaffenheit. Z. angew. Ent., Berlin **33** 1951 pp. 12–18. [Col.]

2527.—Sabrosky, C. W. Chloropidae. Ruwenzori Expedition 1934–35. London, Brit. Mus. (Nat. Hist.) **2** 1951 no. 7 pp. 711–828, 21 figs. [Dipt.]

2528.—Sabrosky, C. W. Nomenclature of the eye gnats (*Hippelates*

spp.). Amer. J. trop. Med., Baltimore **31** 1951 pp. 257–258. [Dipt.]

2529.—Sabrosky, C. W. A revision of the Nearctic species of the genus *Gaurax* (Diptera, Chloropidae). Amer. Midl. Nat., Notre-Dame **45** 1951 pp. 407–431, 8 figs.

2530.—Sabrosky, C. W. Two new species of *Pseudiastata* (Dipt., Drosophilidae) predacious on the pineapple mealybug. Bull. ent. Res., London **41** 1951 pp. 623–627, 8 figs.

2531.—Sabrosky, C. W. A review of the Nearctic species of *Lasiopleura* (Diptera, Chloropidae). Canad. Ent., Ottawa **83** 1951 pp. 336–343, 4 figs.

2532.—Sabrosky, C. W. Taxonomy and ecology. Ecology, Lancaster, Pa. **31** 1950 pp. 151–152.

2533.—Sabrosky, C. W. Transfer of genus from Otitidae to Chloropidae (Diptera). Proc. ent. Soc. Washington **53** 1951 p. 49.

2534.—Sabrosky, C. W. A new species of *Ogcodes* from the Juan Fernandez Islands (Diptera Acroceridae). Rev. chil. Ent., Santiago **1** 1951 pp. 189–190.

2535.—Saccà, G. Esperienze d'incrocio fra *Musca domestica* L., *Musca vicina* Mq., *Musca nebulo* F. Riv. Parassit., Rome **12** 1951 pp. 47–52 ; also in R.C. Ist. sup. Sanità, Rome **14** 1951 pp. 937–943. [Dipt.]

2536.—Sachtleben, H. Zur Priorität des Satzes von der Irreversibilität der Entwicklung. Beitr. Ent., Berlin **1** 1951 p. 93.

2537.—Sack, P. Syrphidae (Dipt.). Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 97–120, 7 figs. [all but 6 copies destroyed in the War ; re-issued in 1951 as Bd. 2 pp. 93–116, 7 figs.]

2538.—Sacktor, B. Some aspects of respiratory metabolism during metamorphosis of normal and DDT-resistant house-flies, *Musca domestica* L. Biol. Bull., Lancaster, Pa. **100** 1951 pp. 229–243. [Dipt.]

2539.—Sailer, R. I. Concerning a recent paper on the insects and related Arthropods of Arctic Alaska. Ecology, Lancaster, Pa. **32** 1951 pp. 729–730.

2540.—Sailer, R. I. The biting snipe-fly in Alaska (Diptera, Rhagionidae). Proc. ent. Soc. Washington **53** 1951 pp. 331–332.

2541.—Sailer, R. I. & **Lienk,** S. E. Blow flies (Calliphoridae) in Alaska. Canad. Ent., Ottawa **83** 1951 pp. 208–211. [Dipt.]

2542.—St. Quentin, D. Secondary sexual characters on the legs of Zygoptera (Odonata). Ent. News, Lancaster, Pa. **62** 1951 pp. 105–108.

2543.—Sakagami, S. *Bombus* (*Agrobombus*) *senilis* Smith und ihr Nest. Mushi, Fukuoka **22** 1951 pp. 9–15, 2 pls. 2 figs. [Hym.]

Sakagami, S. *see* Watanabe & Sakagami.

2544.—Sala de Castellarnau, I. Notas entomológicas en plena naturaleza. I.—Himenópteros. Brotéria, Lisbon Ci. nat. **20** 1951 pp. 101–110, 2 figs.

Salah Eldin Abul Nasr *see* Nasr.

2545.—Salkeld, E. H. A toxicological and histophysiological study of certain new insecticides as " stomach poisons " to the honey-bee *Apis mellifera* L. Canad. Ent., Ottawa **83** 1951 pp. 39–52, 53–61, 2 pls.

2546.—Salmon, J. T. Some Collembola from Malaya. Proc. R. ent. Soc. London (B) **20** 1951 pp. 131–141, 47 figs.

2547.—Salmon, J. T. Keys and bibliography to the Collembola. Zool. Publ. Victoria Univ. Coll., Wellington, N.Z. **8** 1951 82 pp.

2548.—[Samoĭlovich, E. N.] The influence of nutrition on the intensity of the development and propagation of the root *Phylloxera* (*Phylloxera vastatrix* Planch.). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 18–25. [Hem.]

2549.—Samšiňák, K. *Formica fusca* r. *lemani* Bondr. (Hym. Formic.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 122–127, 9 figs.

2550.—Samšiňák, K. Gynandromorphus apud *Myrmica scabrinodis* Nyl. 1846. Ent. Listy, Brno **13** 1951 pp. 116–118, 5 figs. [Hym.]

2551.—Samšiňák, K. De examine formicarum ex Humprechti arce apud Sobotka. Ent. Listy, Brno **13** 1951 pp. 164–166. [Hym.]

2552.—Sanborn, R. C. & **Williams,** C. M. The cytochrome system in the Cecropia silkworm, with special reference to the properties of a new component. J. gen. Physiol., Baltimore **33** 1950 pp. 579–588, 3 figs. [Lep.]

2553.—Sanderson, A. R. & **Hall,** D. W. Sex determination in the honey-bee. Evolution, Lancaster, Pa. **5** 1951 pp. 414–415. [Hym.]

2554.—Sanderson, M. W. The *Phyllophaga* of Hispaniola (Coleoptera : Scarabaeidae). Bull. Mus. comp. Zool. Harv., Cambridge, Mass. **106** 1951 pp. 249–283, 6 pls.

2555.—Sanderson, M. W. A new record and two new species of North American Hispinae (Coleoptera Chrysomelidae). Proc. ent. Soc. Washington **53** 1951 pp. 160–163, 7 figs.

2556.—Sanderson, M. W. & **King,** E. W. Some generic synonymy in North American tortoise beetles with descriptions of two new species. J. Kansas ent. Soc., Manhattan **24** 1951 pp. 125–128, 9 figs. [Col.]

2557.—Sandrasagara, T. R. A catalogue of the named Ceylonese Tetrigidae, Eumastacidae and Acrididae (Insecta : Orthoptera) in the collection of the Colombo Museum, with records of distribution. Rec. Indian Mus., Delhi **47** (1949) 1950 pp. 135–157.

2558.—Santos Vilar, J. M. dos. Subsídios para o estudo dos *Ceroplastes* spp. (Insecta–Coccidae) de Portugal. Brotéria, Lisbon (Ci. nat.) **20** 1951 pp. 111–136, 177–188, 2 figs.

2559.—Sarà, M. Su *Psychoda severini severini* Tonn. (Dipt. Psychodidae) nuova per l'Italia e sulla sua larva, rinvenute in ambiente cavernicolo. Annu. Ist. Mus. Zool. Univ. Napoli **2** 1950 no. 3, 4 pp. 1 fig.

2560.—Sarà, M. Sulla chetotassi e su alcune caratteristiche del tegumento nella larva di *Psychoda severini severini* Tonn. (Dipt. Psychodidae). Annu. Ist. Mus. Zool. Univ. Napoli **2** 1950 no. 6, 9 pp. 4 figs.

2561.—Sarà, M. Psicodidi dell' Italia centro-meridionale e descrizione di una nuova specie di *Telmatoscopus* (Dipt. Nematocera). Annu. Ist. Mus. Zool. Univ. Napoli **2** 1950 no. 7, 8 pp. 2 figs.

2562.—Sarà, M. Tre nuove specie dei generi *Clytocerus, Pericoma* e *Telmatoscopus* (Dipt. Psychodidae). Annu. Mus. Ist. Zool. Univ. Napoli **3** 1951 no. 10 pp. 1–10, 3 figs.

2563.—Sarà, M. Sui fenomeni di degenerazione nella spermatogenesi di *Telmatoscopus albipunctatus* Willis. (Diptera Psychodidae). Arch. zool. (ital.), Turin **35** 1950 pp. 195–215, 1 pl., 2 figs.

2564.—Sarà, M. Sulla capsula cefalica delle larve dei Ditteri Psicodidi. Boll. Zool., Torino **18** 1951 pp. 49–56.

2565.—Sarà, M. Sui cromosomi di *Telmatoscopus albipunctatus*, con alcuni dati su quelli di *Telmatoscopus ustulatus* (Diptera Psychodidae). Caryologica, Pisa **3** 1951 pp. 204–210.

Sarà, M. *see* Battaglia & Sarà.

2566.—Sarkaria, D. S., **Bettini,** S. & **Patton,** R. L. A rapid staining method for clinical study of cockroach blood cells. Canad. Ent., Ottawa **83** 1951 pp. 329–332, 1 pl. [Orth.]

Sarkaria, D. S. *see* Bettini, Sarkaria & Patton ; Brown, Sarkaria & Thompson.

2567.—[Sarkisyan, S. M.] The influence of the conditions of the rearing of the parents on the productiveness of the progeny of the mulberry silkworm. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **79** 1951 pp. 513–515. [Lep.]

2568.—Sarlet, L. Faune de la Belgique. Les Géométrides à femelles aptères. Verviers, Ch. Vinche 1948 150 pp. 25 pls. [Lep.]

2569.—Sarlet, H., **Faidherbe,** J. & **Frenck,** G. Mise en évidence chez différents arthropodes d'un inhibiteur de la d–acidaminoxydase. Arch. int. Physiol., Paris **58** 1950 pp. 256–257.

2570.—Sarma, P. S. Accumulation of cholesterol in inositol-deficient larvae of *Corcyra cephalonica* St. Current Sci., Bangalore **19** 1950 pp. 315–316. [Lep.]

Sarma, P. S. *see* Mukerji & Sarma.

2571.—Sasa, M. & **Ishimura,** K. A new species of mosquito, *Aedes* (*Finlaya*) *bunanoki,* n. sp. from Aomori, Japan. Jap. J. exp. Med., Tokyo **21** 1951 pp. 103–108, 6 figs. [Dipt.]

2572.—Sasa, M. & **Kano,** R. Description and comparative studies on the larva of *Aedes* (*Stegomyia*) *galloisi* Yamada (Diptera, Culicidae). Jap. J. exp. Med., Tokyo **21** 1951 pp. 109–113, 3 figs.

Sato, K. *see* Kano & Sato ; Kano, Sato & Tange.

2573.—Sato, S. Compound eyes of *Culex pipiens* var. *pallens* Coquillett. Sci. Rep. Tôhoku Univ. (4) **18** 1950 pp. 331–341, 3 figs. [Dipt.]

2574.—Sato, S. Development of the compound eye of *Culex pipiens* var. *pallens* Coquillett. Sci. Rep. Tôhoku Univ. (4) **19** 1951 pp. 23–28, 3 figs. [Dipt.]

2575.—Sato, S. Larval eyes of *Culex pipiens* var. *pallens* Coquillett. Sci. Rep. Tôhoku Univ. (4) **19** 1951 pp. 29–32, 6 figs. [Dipt.]

2576.—Satomura, H. Relations of temperature to the development of the larval and pupal stages of *Phyllotreta vittata.* [In Japanese with English summary.] Oyô-Kontyû, Tokyo **6** 1950 pp. 1–9. [Col.]

2577.—Scaramuzza, L. C. Insectos observados en *Eucalyptus* spp. Bol. Hist. nat. Soc. Felipe Poey, Habana **2** 1951 pp. 86–89.

2578.—Schade, F. H. Papilioniden Paraguays. Ent. Z., Frankfurt a. M. **60** 1951 pp. 182–184. [Lep.]

2579.—Schaefer, L. Nouvelles formes de Buprestides de Corse. Bull. mens. Soc. linn. Lyon **20** 1951 pp. 4–6. [Col.]

2580.—Schaefer, L. Notes biologiques sur les Buprestides (suite). Bull. mens. Soc. linn. Lyon **20** 1951 pp. 231–236. [Col.]

2581.—Schaefer, L. Les Buprestides de France. Tableaux analytiques des Coléoptères de la faune franco-rhénane. . . . Misc. ent., Paris Suppl. 1949 511 pp. 25 pls.

2582.—Schaerffenberg, B. & **Kupka,** E. Untersuchungen über die geruchliche Orientierung blutsaugender Insekten. I. Ueber die Wirkung eines Blutduftstoffes auf *Stomoxys* und *Culex.* Oesterr. zool. Z., Vienna **3** 1951 pp. 410–424, 2 figs. [Dipt.]

2583.—Schaffner, J. C. & **Millspaugh,** D. D. A preliminary list of the Gyrinidae (Coleoptera) known to occur in Iowa. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [? 1951] pp. 531–532.

2584.—Schaller, F. Réalisation des caractères de caste au cours de développements perturbés chez l'abeille (*Apis mellifica* L.). C.R. Soc. Biol., Paris **145** 1951 pp. 1351–1354, 2 figs. [Hym.]

2585.—Schaller, F. Schmetterlinge hören Ultraschall. Ent. Z., Frankfurt a. M. **60** 1950 pp. 31–32. [Lep.]

2586.—Schaller, F. Zur Oekologie der Collembolen des Mainzer Sandes. Zool. Jahrb., Jena Abt. Syst. **79** 1951 pp. 449–513, 14 figs.

2587.—Schantz, M. v. *Tinea montelliella* n. sp. (Lep., Tineidae) aus Fennoskandien. Notul. ent., Helsinki **31** 1951 pp. 18–20, 5 figs.

2588.—Schantz, M. v. & **Bruun,** H. Lepidopterologiska iakttagelser i nordvästra Enontekis (Le) 1946–1948. Notul. ent., Helsingfors **31** 1951 pp. 109–118, 1 map.

2589.—Schatz, E. Ueber die Formbildung der Flügel bei Hitzemodifikationen und Mutationen von *Drosophila melanogaster.* Biol. Zbl., Leipzig **70** 1951 pp. 305–353, 23 figs. [Dipt.]

2590.—Schatzmayr, A. I colleotteri idroadefagi della Libia, con speciale riguardo alla fauna della Tunisia e dell'Egitto. Ann. Mus. libico Stor. nat., Tripoli **3** 1942 pp. 195–225, 3 figs.

2591.—Schatzmayr, A. Osservazioni su alcune specie della famiglia Phalacridae (Coleopt. Clavicornia). Atti Soc. ital. Sci. nat., Milan **89** 1950 pp. 213–217.

2592.—Schedl, K. E. Fauna argentinensis VI. 115. Beitrag zur Morphologie und Systematik der Scolytoidea. Acta zool. lilloana, Tucuman **9** 1951 [preprint 1950] pp. 283–292, 4 figs. [Col.]

2593.—Schedl, K. E. Fauna aethiopica VII. Bark- and Ambrosia-beetles from Dahomey and Togo collected by Mr. A. Villiers. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 1103–1106, 1 fig. [Col.]

2594.—Schedl, K. E. Neotropische Scolytoidea IV. Dusenia, Curitiba **2** 1951 pp. 71–130, 19 figs. [Col.]

2595.—Schedl, K. E. Bark- and ambrosia beetles from Surinam I. Ent. Ber., Amsterdam **13** 1951 pp. 376–378, 2 figs. [Col.]

2596.—Schedl, K. E. Bestimmungstabellen palaearktischer Borkenkäfer VI. [contd.] Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 112–116. [Col.]

2597.—Schedl, K. E. Fauna madagascariensis. II. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 19–25, 1 fig. [Col.]

2598.—Schedl, K. E. Fauna samoanus (Scolytoidea) I. Occ. Pap. Bishop Mus., Honolulu **20** 1951 pp. 131–156, 5 figs. [Col.]

2599.—Schedl, K. E. Chilenische Borkenkäfer I. (Coleoptera Scolytoidea.) Rev. chil. Ent., Santiago **1** 1951 pp. 15–22, 3 figs.

2600.—Schedl, K. E. Fauna aethiopica V, VI. Rev. franç. Ent., Paris **18** 1951 pp. 38–39, 40–42, 1 fig. [Col.]

2601.—Schedl, K. E. Fauna indomalayaensis I. Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 41–98, 1 fig. [Col.]

2602.—Schedl, K. E. & C. Der Fichtennestwickler (*Epiblema tedella* Cl.). [Klagenfurt], Landesforstinsp. Kärnten 1951 132 [+4] pp. 42 figs. [Lep.]

2603.—Scheerpeltz, O. Neue Staphyliniden aus Portugal (Col.). Eos, Madrid **27** 1951 pp. 97–141, 11 figs.

2604.—Scheerpeltz, O. A new Staphylinid beetle (Col. Staphylinidae) found in the nest of *Tatera brantsii* (Rodentia, Muridae). J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 27–29, 2 figs.

2605.—Scheerpeltz, O. Die neue Systematik der Gattung *Sipalia* Muls. & Rey (Col. Staphylinidae). Verh. zool.-bot. Ges. Wien **92** 1951 pp. 166–180.

Scherler, M. *see* Guénin & Scherler.

2606.—Schindler, U. Die Wespen als Helfer im Kampf gegen den Borkenkäfer. Beitr. Naturk. Niedersachs., Hanover no. 4 1948 pp. 25–26. [Hym., Col.]

Schlehuber, A. M. *see* Chatters & Schlehuber.

2607.—Schmid, F. Quelques nouveaux Trichoptères néarctiques. Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 7, 16 pp. 28 figs.

2608.—Schmid, F. Notes sur quelques Thaumaléides suisses et espagnoles (Diptera, Nematocera). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 40, 6 pp. 6 figs.

2609.—Schmid, F. Notes sur quelques *Halesus* (Trich. Limnoph.). Bull. Soc. vaud. Sci. nat., Lausanne **65** 1951 pp. 63–71, 29 figs.

2610.—Schmid, F. Les genres *Acrophylax* Brau. et *Chionophylax* n. gen. (Limnoph., Trichopt.). Eos, Madrid **27** 1951 pp. 43–61, 54 figs.

2611.—Schmid, F. Le genre *Ironoquia* Bks. (Trichopt. Limnophilid.). Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 317–328, 26 figs.

2612.—Schmid, F. Le groupe de *Enoicyla* (Trichopt., Limnoph.). Tijdschr. Ent., Amsterdam **94** 1951 pp. 207–226, 46 figs.

2613.—Schmid, F. Monographie du genre *Halesus* (Trich.). Trab. Mus. Cienc. nat. Barcelona (N.S.) Zool. **1** 1951 no. 3, 72 pp. 297 figs.

2614.—Schmidt, E. Libellen aus Portugiesisch Guinea, mit Bemerkungen über andere aethiopische Odonaten. Arq. Mus. Bocage, Lisbon **20** (1949) 1951 pp. 125–200, 29 figs.

2615.—Schmidt, E. Sclerotizations in the lateral body wall of the nymphal abdomen in Odonata. Ent.

News, Lancaster, Pa. **62** 1951 pp. 125–134, 2 figs.

2616.—Schmidt, E. Two notes on Corduliine nymphs (Odonata : Libellulidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 265–275, 3 figs.

2617.—Schmidt, E. Was ist *Libellula . . . isoceles* O. F. Müller 1767 ? Ent. Z., Frankfurt a. M. **60** 1950 pp. 1–7, 13–14. [Odon.]

2618.—Schmidt, E. Libellensammler-Freuden auf der Insel Korfu. Ent. Z., Frankfurt a. M. **60** 1950 pp. 129–134, 4 figs. [Odon.]

2619.—Schmidt, E. *Nothochrysa germanica* Esben Petersen 1913, endemisch für die untere Sieg ? (Neuroptera, Chrysopidae.) Ent. Z., Frankfurt a. M. **60** 1951 pp. 169–172, 3 figs.

2620.—Schmidt, E. The Odonata of Madagascar. Zygoptera. Mém. Inst. sci. Madagascar, Tananarive **6A** 1951 pp. 115–283, 89 figs.

2621.—Schmidt, E. Zwei bemerkenswerte Platycnemididen aus dem Zoologischen Museum der Universität Berlin (Ordn. Odonata). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 202–209, 2 figs.

2622.—Schmidt, E. Ueber neue und weniger bekannte afrikanische Platycnemididen (Odon.). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 217–240, 12 figs.

2623.—Schmidt, G. 4. Beitrag zur Kenntnis der paläarktischen Cerambyciden nebst einigen Gedanken zur Benennung von Formen. Ent. Bl., Krefeld **47** 1951 pp. 9–16, 2 figs. [Col.]

2624.—Schmidt, H. Amputation und Regeneration von Schwanzfäden und Abdominalsegmenten bei Larven der Ephemeridenart *Cloeon dipterum* L. und ihr Einfluss auf die Häutungsintervall. Zool. Jb., Jena Zool. **62** 1951 pp. 395–428, 12 figs.

2625.—Schmitz, H. Myrmekophile und termitophile Phoriden (Diptera), von S. Patrizi und F. Meneghetti in Africa gesammelt. Boll. Ist. Ent. Bologna **18** 1951 pp. 128–166, 19 figs.

2626.—Schmitz, H. Beiträge zu einer Monographie der Termitoxeniidae (Diptera) VI. Brotéria, Lisbon (Ci. nat.) **20** 1951 pp. 65–86, 5 figs.

2627.—Schmitz, H. Japanische Phoriden 1. Brotéria, Lisbon (Ci. nat.) **20** 1951 pp. 145–158, 3 figs. [Dipt.]

2628.—Schmitz, H. Nochmals die Gattung *Thaumatoxena* mit Beschreibung neuer Arten (Phoridae, Diptera). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 254–266, 6 figs.

2629.—Schmutterer, H. Zur Lebensweise der Nadelholz–Diaspidinen (Homoptera, Coccoïdea, Diaspididae, Diaspidinae) und ihrer Parasiten in den Nadelwäldern Frankens. Z. angew. Ent., Berlin **33** 1951 pp. 111–136, 7 figs.

2630.—Schneider, F. Einige physiologische Beziehungen zwischen Syrphidenlarven und ihren Parasiten. Z. angew. Ent., Berlin **33** 1951 pp. 150–162, 6 figs. [Dipt., Hym.]

2631.—Schoffeniels, E. La régulation de la pression osmotique et de la chlorémie chez les larves d'odonates. Arch. int. Physiol., Paris **58** 1950 pp. 1–4.

2632.—Schoffeniels, E. Notes sur les Odonates de Belgique (4e série). Comparaison de la faune odonatologique de deux mares des environs de Liège. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 174–181.

2633.—Schöne, H. Aus dem Leben des Gelbrands. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 107–111, 6 figs. [Col.]

2634.—Schöne, H. Die Lichtorientierung der Larven von *Acilius sulcatus* L. und *Dytiscus marginalis* L. Z. vergl. Physiol., Berlin **33** 1951 pp. 63–98, 11 figs. [Col.]

2635.—Schouteden, H. Un genre nouveau de Cimicide du Katanga (Hemipt. Cimic.). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 278–280.

2636.—Schouteden, H. Un nouveau genre de Graphosomatinae (Hemipt. Pentatom.). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 295–296.

2637.—Schouteden, H. Reduviidae Saicinae novae (Hem.). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 15–16.

2638.—Schouteden, H. Deux *Ptilocoris* nouveaux du Katanga (Hem. Reduv.). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 142–143.

2639.—Schouteden, H. Stenopodinae novae africanae (Hem. Reduv.). Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 144–171.

2640.—Schreiber, G. & **Pellegrino,** J. Análise citológica e cariométrica da ação da colchicina sôbre a espermatogênese dos hemípteros. Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 513–542, 34 figs.

2641.—Schremmer, F. Zur Biologie der Larve von *Hermione* (*Oxycera*) *calceata* und *Hermione meigeni* Staeg. (Diptera, Stratiomyidae). Zugleich ein Beitrag zur Fauna hygropetrica. Oesterr. zool. Z., Vienna **3** 1951 pp. 126–139, 5 figs.

2642.—Schremmer, F. Die Mundteile der Brachycerenlarven und der Kopfbau der Larve von *Stratiomys chamaeleon* L. Oesterr. zool. Z., Vienna **3** 1951 pp. 326–397, 25 figs. [Dipt.]

2643.—Schrödter, H. Die Niederschlagsverhältnisse in Sachsen-Anhalt 1947/48 als Ursache der kreisweisen Befallsunterschiede beim Massenauftreten des Rüben-Derbrüsslers 1948. Angew. Met., Berlin **1** 1951 pp. 60–62, 2 figs. [Col.]

Schrödter, H. *see* Eichler & Schrödter.

2644.—Schroeder, J. D. Die Insekten des Naturschutzparkes der Lüneburger Heide. II. Die Grossschmetterlinge. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 763–785, 1 fig. [Lep.]

2645.—Schua, L. Der Einfluss des Wetters auf das Verhalten der Honigbiene. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 183–186. [Hym.]

2646.—Schuch, J. E. Some effects of colchicine on the metamorphosis of *Culex pipiens* Linn. Chromosoma, Vienna **4** 1951 pp. 456–469, 6 figs. [Dipt.]

Schultz, J. *see* Patterson, Dackerman & Schultz.

2647.—Schultz, V. G. M. Ueber die ♀ Formen von *Lycaena optilete* Knoch in der Lüneburger Heide. Ent. Z., Frankfurt a. M. **60** 1950 pp. 137–140, 1 pl. [Lep.]

2648.—Schultz, V. G. M. Aus der Lebensgeschichte der drei *Semasia*-Arten *oppressana* Tr., *incarnana* Hw. und *neglectana* Dun. Ent. Z., Frankfurt a. M. **61** 1951 pp. 65–67, 1 pl. [Lep.]

2649.—Schultz, V. G. M. Neue Beiträge zur Schmetterlingskunde. Nr. 9. Natur u. Heimat, Münster **9** 1949 Heft 3 pp. 1–13, 2 figs. [Lep.]

2650.—Schultz, V. G. M. Neue Beiträge zur Schmetterlingskunde. Nr. 10. Z. wien. ent. Ges., Vienna **36** 1951 pp. 55–59. [Lep.]

2651.—Schumann, H. Bemerkenswerte Libellen aus Niedersachsen. Beitr. Naturk. Niedersachs., Hanover no. 2 1948 pp. 27–32; **4** 1951 pp. 116–120. [Odon.]

2652.—Schuster, R. M. A revision of the genus *Ephuta* (Mutillidae) in America north of Mexico. J. New York ent. Soc. **59** 1951 pp. 1–42, 5 pls. [Hym.]

2653.—Schuster, R. M. Notes on Neotropical Mutillidae. V. Contributions to the genus *Hoplomutilla* Ashmead. Rev. Ent., Rio de Janeiro **22** 1951 pp. 315–328. [Hym.]

2654.—Schwarz, H. F. New stingless bees (Meliponidae) from Panama and the Canal Zone. Amer. Mus. Novit., New York no. 1505 1951 16 pp. [Hym.]

2655.—Schwarz, H. F. Stingless bees collected by R. Takahashi in Indo-China and Siam (Hymenoptera). Mushi, Fukuoka **22** 1951 p. 63.

2656.—Schwarz, R. *Coleophora onopordiella* Z. as a rye injurer. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 89–93, 1 fig. [Lep.]

2657.—Schweiger, H. Auf Käferjagd in den lappländischen Alpen. Ent. Bl., Krefeld **45-46** (1949–1950) 1951 pp. 112–118. [Col.]

2658.—Schweiger, H. Die Rassen des *Duvalius exaratus* Schaum. (Col., Carabidae). Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 146–151, 1 fig.

2659.—Schweiger, H. Bemerkenswerte Coleopterenfunde aus Oesterreich (2. Beitrag). Ent. Z., Frankfurt a. M. **60** 1950 pp. 14–16, 23–24, 40.

2660.—Schwetz, J. Troisième note supplémentaire sur la répartition des Phlébotomes au Congo belge. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 213–214. [Dipt.]

2661.—Schwinck, I. Veränderungen der Epidermis, der Perikardialzellen und des Corpora allata in der Larven-Entwicklung von *Panorpa communis* L. unter normalen und experimentellen Bedingungen. Arch. EntwMech. Org., Berlin **145** 1951 pp. 62–108, 34 figs. [Mecopt.]

2662.—Scoggin, J. K. Effects of selected diets and metamorphosis on lipid composition of *Dermestes maculatus* Deg. [Abstract of thesis.] Iowa State Coll. J. Sci., Ames **25** 1951 pp. 353–354. [Col.]

2663.—Scortecci, G. Biologia del Tibesti. Ann. Mus. libico Stor. nat., Tripoli **2** 1940 pp. 257–275, 2 figs.

2664.—Scott, T. L. Bee Anatomy. Internal Section 5. Part 1 (continued). Microscope, London **7** 1948 pp. 7–11, 97–101, 159–166, 6 figs. [Hym.]

Seabra *see* Campos Seabra.

2665.—Sebestyén, O. Studies on detritus drifts in Lake Balaton. Arch. biol. Hung., Tihany **19** 1951 pp. 49–64, 2 figs.

2666.—Seevers, C. H. A revision of the North American and European Staphylinid beetles of the subtribe Gyrophaenae (Aleocharinae, Bolitocharini). Fieldiana, Chicago Zool. **32** 1951 pp. 657–762, 123 figs. [Col.]

2667.—Segrove, F. Oviposition behaviour in the two strains of the rice weevil, *Calandra oryzae* Linn. (Coleopt., Curculionidae). J. exp. Biol., London **28** 1951 pp. 281–297, 5 figs.

2668.—Séguy, E. Atlas des Diptères de France, Belgique, Suisse. I. Introduction et caractères généraux Nématocères—Brachycères I. 175 pp. 12 col. pls. 79 figs. II. Développement et biologie Brachycères II—Siphonaptères. 185 pp. 12 col. pls. 83 figs. Nouv. Atlas Ent., Paris no. 8 1951.

2669.—Séguy, E. Description d'un nouveau genre d'Ephydrine (Dipt. Ephydridae). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 4–7, 2 figs.

2670.—Séguy, E. Contribution à l'étude du peuplement de la Mauritanie. Diptères. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 317–318.

2671.—Séguy, E. Description d'une nouvelle espèce de Rhagionide de Madagascar (Diptera). Mém. Inst. sci. Madagascar, Paris **6A** 1951 pp. 395–397, 2 figs.

2672.—Séguy, E. Un Drosophilide phytophage nouveau (Diptera). Mém. Inst. sci. Madagascar, Paris **6A** 1951 pp. 399–405, 4 figs.

2673.—Séguy, E. Deux nouveaux Mydaides chiliens (Dipt.). Rev. franç. Ent., Paris **18** 1951 pp. 12–13.

2674.—Séguy, E. Trois nouveaux Syrphides de Madagascar (Dipt.). Rev. franç. Ent., Paris **18** 1951 pp. 14–18, 2 figs.

2675.—Séguy, E. Un nouveau Calliphoride parasite du criquet migrateur. Rev. franç. Ent., Paris **18** 1951 pp. 119–121, 6 figs. [Dipt.]

2676.—Seidenstücker, G. *Trapezonotus desertus* n. sp., eine neue deutsche Lygaeiden-Art (Heteroptera). Senckenbergiana, Frankfurt a. M. **32** 1951 pp. 79–85, 11 figs.

2677.—Seiler, J. Analyse des intersexen Fühlers von *Solenobia triquetrella* (Psychidae, Lepid.). Rev. suisse Zool., Geneva **58** 1951 pp. 489–495, 2 figs.

2678.—Seiler, J. Untersuchungen über die Entstehung der Parthenogenese bei Psychiden (Lepid.). Un. int. Sci. biol. Paris Sér. B (Colloques) no. 3 1949 pp. 88–90.

2679.—Selahattin Okay. Formation of green pigment in grasshoppers. Nature, London **168** 1951 p. 254. [Orth.]

2680.—Sellier, R. La glande prothoracique des Gryllides. Arch. Zool. exp. gén., Paris **88** Notes et Rev. 1951 pp. 61–72, 4 figs. [Orth.]

2681.—Selvaraj, C. J. Notes on the biology of *Euplectrus spodopterae* Bhatnagar. Indian J. Ent., New Delhi **11** (1949) 1951 pp. 129–130, 5 figs. [Hym.]

2682.—Semenza, L. Interaction of genes affecting the wings in *D. melanogaster*. Nature, London **167** 1951 p. 73. [Dipt.]

2683.—Semenza, L. La interazione fra geni che agiscono sull'ala di *D. melanogaster*. R.C. Ist. lombardo, Milan **83** 1950 Cl. Sci. math. nat. pp. 647–654, 2 figs. [Dipt.]

2684.—Şengün, A. Vergleichend-ontogenetische Untersuchungen über die Riesenchromosomen verschiedener Gewebearten der Chironomiden. II. Rev. Fac. Sci. Univ. Istanbul, Ankara **16B** 1951 pp. 1–44, 30 figs. [Dipt.]

2685.—Şengün, A. Meiotische und somatische Chromosomen von *Chironomus*-Larven. Rev. Fac. Sci. Univ. Istanbul, Ankara **16B** 1951 pp. 345–349, 1 fig. [Dipt.]

Sen Gupta *see* Gupta.

Sen Sarma *see* Sarma.

2686.—[Sergeev, A. F. & **Piontkovskaya,** S. P.] On the finding of sandflies in a cave near Maĭkop. [In Russian.] Ent. Obozr., Moscow **31** 1950 no. 1–2 pp. 107–108. [Dipt.]

2687.—Sergent, E. & **Poncet,** A. L'effet répulsif du feuillage du Mélia, puissant sur certaines espèces d'Acridiens, est nul sur d'autres espèces très voisines. Arch. Inst. Pasteur Alger., Algiers **29** 1951 pp. 305–307. [Orth.]

2688.—Serra, J. A. Une théorie du gêne, de l'effet de position et de la mutation génique. Genetica iberica, Madrid **2** 1950 pp. 113–138, 7 figs.

Serra, J. A. *see* Albuquerque & Serra.

Serralunga, G. *see* Moretti & Serralunga.

2689.—Servadei, A. Contributo allo studio dei tentredinidi (Hymenoptera, Symphyta) delle rose V. *Blennocampa pusilla* Klug. Redia, Florence **34** 1949 pp. 165–216, 30 figs.

2690.—Servadei, A. Nota sull' *Heterogaster urticae* F. e sul genere *Heterogaster* Schill. (Hemiptera Heteroptera, Myodochidae). Redia, Florence **36** 1951 pp. 171–220, 2 pls. 27 figs.

Serventy, V. N. *see* Douglas & Serventy.

2691.—Ševčik, V. Mikrobiologie pylového kvaveni. [With an English summary.] Publ. Fac. Sci. Univ. Masaryk, Brno no. 323 1950 pp. 103–130. [Hym.]

2692.—Shafer, G. D. The ways of a mud dauber. California, Stanford Univ. Press 1949 xiii & 78 pp. 10 pls. (3 col.) 8 figs. [Hym.]

Shankarappa, B. S. *see* Murthy, Shankarappa & Sreenivasaya.

Shapiro, J. E. *see* Tulloch & Shapiro.

2693.—[Shaposhnikov, G. Kh.] Systematic relations of the Aphid genera of the subtribe Anuraphidea. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 213–228, 9 figs. [Hem.]

2694.—[Sharapov, V. I.] The influence of the regime of nutrition on the egg production of the noxious little tortoise. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 84–85. [Hem.]

Sharma, M. I. D. *see* Dakshinamurty & Sharma.

2695.—Shaw, F. R. Some new Mycetophilidae from the western United States. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 65–70, 7 figs. [Dipt.]

2696.—Shaw, F. R. Some new species of Western Mycetophilidae (Diptera). Proc. ent. Soc. Washington **53** 1951 pp. 275–280, 1 pl.

2697.—Shaw, F. R. & M. M. Relationships of certain genera of fungus gnats of the family Mycetophilidae. Smithson. misc. Coll., Washington **117** 1951 no. 3, 23 pp. 45 figs. [Dipt.]

2698.—Shaw, S. The British species of the genus *Dacne* Latreille (Col., Erotylidae). J. Soc. Brit. Ent., Bournemouth, Hants **3** 1951 pp. 276–278, 5 figs.

2699.—Shelford, V. E. Fluctuation of non-forest animal populations in the Upper Mississippi Basin. Ecol. Monogr., Durham, N.C. **21** 1951 pp. 149–181, 19 figs.

2700.—Shelford, V. E. Fluctuation of forest animal populations in east central Illinois. Ecol. Monogr., Durham, N.C. **21** 1951 pp. 183–214, 18 figs.

2701.—Shenefelt, R. D. & **Simkover,** H. G. Notes on habits and "broods" of June beetles. Ent. News, Lancaster, Pa. **62** 1951 pp. 219–223. [Col.]

Sheng *see* Tseng Sheng.

2702.—Sheppard, P. M. A quantitative study of two populations of the moth *Panaxia dominula* (L.). Heredity, London **5** 1951 pp. 349–378. [Lep.]

Sherwood, E. R. *see* Stern & Sherwood.

Shih L. Chang *see* Chang.

2703.—[Shilova-Krassova, S. A.] On the nutrition of the badger in the pine forest of Buzuluk. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 286–288.

2704.—Shogaki, Y. Studies on the ecology of Japanese mosquitoes. 2. On the marsh mosquitoes. [In Japanese with English summary.] Sci. Ins. Control, Kyoto no. 16 1951 pp. 21–28, 6 figs. [Dipt.]

2705.—Short, J. R. T. On the final-instar larva of *Aulacus striatus* Jurine (Hym., Evaniidae). Ent. mon. Mag., London **87** 1951 pp. 272–274, 6 figs.

2706.—Short, J. R. T. Some aspects of the morphology of the insect head as seen in the Lepidoptera. Proc. R. ent. Soc. London (A) **26** 1951 pp. 77–88, 18 figs.

2707.—[Shoshina, M.] Determination of the repeated gonotrophic cycle in sandflies. [In Russian.] C.R. Acad. Sci. URSS., Moscow (N.S.) **78** 1951 pp. 181–183, 1 fig. [Dipt.]

2708.—[Shtakel'berg, A. A.] New data on the genus *Eumerus* Mg. (Diptera, Syrphidae) of the Palaearctic fauna. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 426–439, 16 figs.

2709.—[Shtakel'berg, A. A.] A short survey of the Palaearctic species of the genus *Mallota* Mg. (Diptera, Syrphidae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 285–296, 11 figs.

2710.—[Shtakel'berg, A. A.] Species of the genus *Hercostomus* Lw. (Diptera, Dolichopodidae) of the Central Asiatic fauna. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **8** 1949 pp. 668–687, 36 figs.

Shulov, A. *see* Bohenheimer & Shulov.

2711.—[Shumakov, E. M.] Species and subspecies of Acridids of the genus *Asiotmethis* Uv. (Orthoptera, Acrididae) and their geographical distribution. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 321–325, 8 figs.

Shute, P. G. *see* Maryon, Lee & Shute; Mattingly, Rozeboom, Knight, Laven, Drummond, Christophers & Shute.

2712.—[Shvanvich, B. N.] A course of general entomology. Introduction to the study of the structure and body of insects. [In Russian.] Leningrad, Soviet Sci. 1949 900 pp. 590 figs.

2713.—[Shvanvich, B. N.] The morphology of the pattern of the wing in Palaearctic Lycaenidae and its use in systematics. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 266–275, 15 figs. [Lep.]

2714.—Sibatani, A. & **Ito,** S. Beitrag zur Systematik der Theclinae im Kaiserreich Japan unter besonderer Berücksichtigung der sogenannten Gattung *Zephyrus* (Lepidoptera, Lycaenidae). Tenthredo, Kyoto **3** 1942 pp. 299–334, 22 figs.

2715.—Sibley, L. M. A study of Reduviids in Louisiana. Proc. La Acad. Sci., Baton Rouge **14** 1951 pp. 88–93. [Hem.]

2716.—Sieburth, J. F., **Bonsall,** M. G. & **McLaren,** B. A. A simplified biological assay method using the cockroach, *Periplaneta americana* (Linn.), for protein utilization. Ann.

ent. Soc. Amer., Columbus **44** 1951 pp. 463–468, 2 figs. [Orth.]

2717.—Sieder, L. & **Loebel,** F. *Psychidea bombycella* Schiff. und ihre Rassen. Z. wien. ent. Ges., Vienna **36** 1951 pp. 33–44, 1 col. pl. 8 figs. [Lep.]

Sigwalt, J. *see* Balazuc, Miré, Sigwalt & Théodoridès.

2718.—Siitonen, O. Ueber die Varietäten der Trichopteren. Ann. ent. fenn., Helsinki **17** 1951 pp. 111–113, 1 fig.

2719.—Silvestri, F. Lepidoptera. [Continuation of Compendio di Entom. appl. Parte speciale II 1943.] Boll. Lab. Ent. agr. Portici **10** 1951 pp. 131–303, 104 figs.

Simintzis, G. *see* Fiasson & Simintzis.

Simkover, H. G. *see* Shenefelt & Simkover.

2720.—Sing Yuan Loh. Early testing as a means of evaluating F_1 heterosis between inbred lines of *Drosophila melanogaster*. [Abstract of thesis.] Iowa St. Coll. J. Sci., Ames **25** 1951 pp. 280–282. [Dipt.]

Singh, H. *see* Mukerji & Singh.

Singh Cheema *see* Pratap Singh Cheema.

2721.—Sirks, M. J. Sobre los genes " inestables ". Genetica iberica, Madrid **2** 1950 pp. 109–111, 1 pl. [Dipt.]

2722.—Skaife, S. H. A new type of artificial nest for ants and termites. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 44–52, 4 figs. [Hym., Isopt.]

2723.—Skala, H. Minen aus Steiermark, gesammelt von Fritz Hoffmann. Z. wien. ent. Ges., Vienna **36** 1951 pp. 119–126. [Lep., Dipt.]

2724.—Slabý, O. Quelques problèmes concernant l'apparition de la *Poecilopsis isabellae* Harr. (Lep. Geometr.). [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 90–94.

2725.—Slabý, O. Le problème du dimorphisme sexuel de l'espèce *Xylomania conspicillaris* L. et l'apparition de sa forme typique dans la Bohême de l'ouest (Lep. Noct.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 187–190, 2 figs.

2726.—Slabý, O. Concerning the dependence of the Lepidoptera fauna on climatic cycles. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 242–253, 2 graphs.

2727.—Slater, J. A. A key to the nymphs of midwestern Lygaeidae (Hemiptera : Heteroptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 42–48, 1 pl.

2728.—Slater, J. A. An investigation of the female genitalia as taxonomic characters in the Miridae (Hemiptera). [Abstract of thesis.] Iowa St. Coll. J. Sci., Ames **25** 1951 p. 355.

2729.—Slater, J. A. Notes and new records of Iowa Hemiptera (Heteroptera). Proc. Iowa Acad. Sci., Des Moines **57** (1950) [?1951] pp. 519–521.

2730.—Slifer, E. H. Some unusual structures in *Locusta migratoria migratorioides* and their probable function as thermoreceptors. Proc. roy. Soc., London (B) **138** 1951 pp. 414–437, 21 figs. [Orth.]

2731.—Slípka, J. *Tipula* (*Oreomyza*) *subinvenusta* n. sp. (Dipt.). [In Czech and English.] Ent. Listy, Brno **13** 1951 pp. 78–82, 10 figs.

2732.—Smart, J. The wing-venation of the American cockroach *Periplaneta americana* Linn. (Insecta: Blattidae). Proc. zool. Soc. London **121** 1951 pp. 501–509, 2 pls. 2 figs. [Orth.]

Šmelhaus, J. *see* Povolný & Šmelhaus.

2733.—Smetana, A. Additio ad cognitionem faunae coleopterorum montium Vysoké Tatry. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 229–238.

2734.—Smetana, A. Attributio ad cognitionem speciei *Carabus ullrichi* Germ. cum descriptione morphae novae. [In Czech with Latin summary.] Ent. Listy, Brno **13** 1951 pp. 118–120. [Col.]

2735.—Smit, F. G. A. M. A new flea from Madagascar. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 407–409, 2 figs. [Siphonapt.]

2736.—Smit, F. G. A. M. On two African polytypic species of *Leptopsylla* (Siphonaptera). Tijdschr. Ent., Amsterdam **93** (1950) 1951 pp. 25–40, 34 figs.

2737.—Smith, A. The effect of relative humidity on the activity of the tropical rat flea *Xenopsylla cheopis* (Roths.) (Siphonaptera). Bull. ent. Res., London **42** 1951 pp. 585–599, 1 pl. 4 figs.

2738.—Smith, A. C. A colonial cocoon in the genus *Apion* (Curculionidae). Coleopt. Bull., Washington, D.C. **5** 1951 pp. 74–75, 1 pl.

2739.—Smith, A. G. & **Harrison,** R. A. Notes on laboratory breeding of the housefly (*Musca domestica* L.). N.Z. J. Sci. Tech., Wellington (B) **33** 1951 pp. 1–4, 4 figs. [Dipt.]

2740.—Smith, D. S. & **Northcott,** F. E. The effects on the grasshopper, *Melanoplus mexicanus mexicanus* (Sauss.) (Orthoptera : Acrididae), of varying the nitrogen content in its food plant. Canad. J. Zool., Ottawa **29** 1951 pp. 297–304, 1 fig.

Smith, I. C. *see* Hall & Smith.

2741.—Smith, K. G. A dragonfly migration at Lagos. Nigerian Field, Eversley, Hants **16** 1951 pp. 138–139. [Odon.]

2742.—Smith, K. G. V. Additions to the Dipterous fauna of Herefordshire and Warwickshire. J. Soc. Br. Ent., Bournemouth, Hants **3** 1951 pp. 242–244.

2743.—Smith, K. G. V. Notes on some Thysanoptera from Eastern Ireland. J. Soc. Brit. Ent., Bournemouth, Hants **4** 1951 pp. 45–46.

2744.—Smith, K. M. & **Wyckoff,** R. W. G. Electron microscopy of insect viruses. Research, London **4** 1951 pp. 148–155, 16 figs.

2745.—Smith, M. R. A new species of *Stenamma* from North Carolina (Hymenoptera, Formicidae). Proc. ent. Soc. Washington **53** 1951 pp. 156–158, 2 figs.

2746.—Smith, M. V. & **Townsend,** G. F. A technique for mass-marking honeybees. Canad. Ent., Ottawa **83** 1951 pp. 346–348. [Hym.]

Smith, P. M. *see* Way, Smith & Hopkins.

2747.—Smith, P. S. Segment, marking, and other abnormalities in Lepidopterous larvae. Entomologist, London **84** 1951 pp. 273–275, 2 pls.

2748.—Smith, R. F., **Bryan,** D. E. & **Allen,** W. W. The relation of flights of *Colias* to larval population density. Ecology, Lancaster, Pa. **30** 1949 pp. 288–297, 7 figs. [Lep.]

2749.—Smith, S. G. Evolutionary changes in the sex chromosomes of Coleoptera. Genetica, s'Gravenhage **25** 1951 pp. 522–524, 1 fig.

2750.—Smreczynski, S. Remarques sur quelques Curculionides de France. Bull. Soc. ent. France, Paris **56** 1951 pp. 73–75. [Col.]

2751.—Šnoflák, J. La monographie de *Phanerotoma* Wesm. et de *Phanerotomella* Szépl. (Hym. Bracon.) de la Tchécoslovaquie. Ent. Listy, Brno **13** 1951 pp. 5–33, 21 figs.

2752.—Šnoflák, J. Vzácné druhy lumčíků (Hym. Bracon.) vesměs nové pro Čsr. Ent. Listy, Brno **13** 1951 pp. 120–121.

2753.—Snyder, F. M. New Neotropical Muscidae (Diptera). Amer. Mus. Novit., New York no. 1494 1951 11 pp.

2754.—Snyder, F. M. Some old and new species of Muscinae from the Ethiopian Region (Diptera, Muscidae). Amer. Mus. Novit., New York no. 1533 1951 42 pp. 7 figs.

Sobels, F. H. *see* Lever & Sobels.

2755.—Soenen, A. Biologische Beiträge über den Frostspanner. Höfchen-Briefe Wiss. Prax., Leverkusen **4** 1951 pp. 3–19, 6 figs. [Lep.]

Soika *see* Giordani Soika.

Sokoloff, A. *see* Brito da Cunha, Dobzhansky & Sokoloff.

Sol *see* Gonzalez Sol.

2756.—Solari, F. Di alcuni Curculionidi italiani. Note faunistiche (Coleoptera Curculionidae). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 17–21.

2757.—Solari, F. Due nuove specie italiane di Hypurina (Col. Curc.). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 51–55.

2758.—Soliman, A. A. Morphological features as a means for detecting the different stages of the Aphid *Myzus persicae* Sulzer (Hemiptera-Homoptera : Aphididae). Bull. Soc. Fouad Ier Ent., Cairo **35** 1951 pp. 193–204, 7 figs.

2759.—Someren, E. C. C. van. New Culicini from Kenya and Uganda. Proc. R. ent. Soc. London (B) **20** 1951 pp. 1–9, 7 figs. [Dipt.]

Someren, E. C. C. van *see* Hadlow, van Someren, Lumsden, Harper & Gillett.

Son *see* Van Son.

2760.—[Sosnina, E. F.] A new species of louse of the Turkestan rat from Tadzhikistan. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **77** 1951 pp. 365–368, 5 figs. [Anopl.]

Southgate, B. J. *see* Woodroffe & Southgate.

2761.—Southwood, T. R. E. Notes on the biology of two Coreidae and a Pentatomid (Hem.). Ent. mon.Mag., London **87** 1951 pp. 172–173, 1 fig.

2762.—Souza Lopes, H. de. Sôbre o gênero *Lepidodexia* Brauer & Bergenstamm, 1891 (Diptera-Sarcophagidae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **49** 1951 pp. 641–658, 43 figs.

2763.—Souza Lopes, H. de. Sôbre o gênero *Harpagopyga* Aldrich, 1916 (Diptera, Sarcophagidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 275–288, 43 figs.

2764.—Souza Lopes, H. de & **Downs,** W. G. Contribuição ao conhecimento das espécies do gênero *Acanthodotheca* Townsend (Diptera-Sarcophagidae). Mem. Inst. Oswaldo Cruz, Rio de Janeiro **47** (1949) 1951 pp. 571–590, 59 figs. (In English pp. 591–603.)

Spärck, R. *see* Braestrup, F. W.

2765.—Spassky, B. Effect of temperature and moisture content of the nutrient medium on the viability of chromosomal types in *Drosophila pseudoobscura*. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 177–180. [Dipt.]

Spassky, B. *see* Pavan, Cordeiro & others.

2766.—Spear, P. J. Disposable insect cages. Soap & sanit. Chem., New York **27** 1951 pp. 143, 153, 3 figs.

2767.—Spencer, G. J. Upon the mating habits of *Thermobia domestica* Pack. (Thysanura : Lepismidae.). Proc. ent. Soc. Brit. Columbia, Victoria **47** 1951 pp. 40–42.

2768.—Spencer, W. P. Gene homologies in the mutants of *Drosophila hydei*. Genetics, Palaeont. & Evol., Princeton, New Jersey 1949 pp. 23–44. [Dipt.]

2769.—Sperry, J. L. Geometrid notes. Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 50–54. [Lep.]

2770.—Sperry, J. L. Four South American Geometrid moths apparently undescribed. Bull. S. Calif. Acad. Sci., Los Angeles **50** 1951 pp. 159–163. [Lep.]

2771.—Speyer, E. R. Gladiolus thrips (*Taeniothrips simplex* Mor.) in England. Proc. R. ent. Soc. London (B) **20** 1951 pp. 53–62, 7 figs. [Thysanopt.]

2772.—Speyer, E. R. & **Parr,** W. J. Studies upon Thysanoptera. Rep. exp. Res. Sta., Cheshunt **36** (1950) 1951 pp. 35–40, 4 pls.

2773.—Spieth, H. T. Mating behaviour and sexual isolation in the *Drosophila virilis* species group. Behaviour, Leiden **3** 1951 pp. 105–145, 1 fig. [Dipt.]

2774.—Spieth, H. T. The breeding site of *Drosophila lacicola* Patterson. Science, Lancaster, Pa. **113** 1951 p. 232. [Dipt.]

2775.—Spiller, D. Notes on Thysanoptera. N.Z. J. Sci., Dunedin (B) **33** 1951 pp. 142–143.

2776.—Spiller, D. Digestion of alpha-cellulose by larvae of *Anobium punctatum* De Geer. Nature, London **168** 1951 pp. 209–210. [Col.]

Spinks, J. W. T. *see* Arnason, Irwin & Spinks; Fuller, Spinks, Arnason & McDonald.

2777.—Spreadbury, W. H. A wasp's nest (*Vespula vulgaris* L.). Trans. S. Lond. ent. nat. Hist. Soc. **1949–50** 1951 pp. 83–84, 8 pls.

Springhetti, A. *see* Ronchetti & Springhetti.

2778.—Squire, F. A. Observations on mating scars in *Glossina palpalis* (R.-D.). Bull. ent. Res., London **42** 1951 pp. 601–604, 2 figs. [Dipt.]

Sreenivasaya, M. *see* Murthy, Shankarappa & Sreenivasaya.

Srisukh, S. *see* Goodwin & Srisukh.

2779.—Srivastava, M. D. L. " Lampbrush " fibres in the chromosomes of *Chrotogonus incertus* Bolivar. Nature, London **167** 1951 pp. 775–776. [Orth.]

2780.—Stach, J. Owady bezskrzydłe (Apterygota). Fn. Słodkowodna polski, Warsaw no. 18 1951 126 pp. 71 figs.

2781.—Stäger, R. Freilandbeobachtungen und -Versuche an der Honigbiene. Mitt. naturf. Ges. Bern (N.F.) **8** 1951 pp. xxix. [Hym.]

2782.—Stäger, R. Biologische Beobachtungen an Käfern im Wallis. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 125–128. [Col.]

Stalker, H. D. *see* Carson & Stalker.

2783.—Stammer, H. J. Ueber die Rückbildung des Mitteldarms bei Insekten. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 951–956, 4 figs.

Standen, H. *see* Armstrong, Bradbury & Standen.

2784.—Stanković, S. La faune de fond des lacs égéens. [In Serbian with French summary.] Zborn. Rad. Inst. Ekol. srpsk. Akad. Nauk, Belgrade **11** 1951 no. 2 pp. 1–70, 13 figs.

2785.—Stanley, J. The autotrephon: an apparatus for rearing insects under controlled conditions with automatic time-controlled withdrawal of samples. Ecology, Lancaster, Pa. **32** 1951 pp. 413–442, 21 figs.

2786.—Stannard, jr., L. J. The second species of *Psectrothrips* (Thysanoptera : Thripidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 245–249, 3 figs.

2787.—Stannard, jr., L. J. A new *Sericothrips* from Illinois (Thysanoptera : Thripidae). J. Kansas ent. Soc., Manhattan **24** 1951 pp. 129–130, 3 figs.

2788.—Stärcke, A. Critical commentary upon M.V. Brian's and A. D. Brian's " Observations ". Ent. Ber., Amsterdam **13** 1951 pp. 324–327.

2789.—Stark, H. E. A specimen of *Hoplopsyllus anomalus* (Baker) lacking a pronotal ctenidium (Siphonaptera). Pan-Pacif. Ent., San Francisco **27** 1951 p. 91, 1 fig.

Stark, H. E. *see* Prince & Stark.

2790.—[Stark, V. N.] New data on the synonymy of barkbeetles (Coleoptera, Ipidae) of the fauna of the USSR. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 229–230.

2791.—Starke, H. Die Minierfliegen (Agromyziden) und deren Substrate. Abh. naturf. Ges. Görlitz **33** 1942 pp. 74–80. [Dipt.]

2792.—Steeg, M. Massenauftreten von *Stilpnotia salicis* L. im Frankfurter Faunengebiet. Ent. Z., Frankfurt a. M. **60** 1950 pp. 57–59. [Lep.]

2793.—Steffan, J. R. Les Haltichellinae du groupe *Neochalcis* Kirby (Hym. Chalcididae). Bull. Mus. Hist. nat., Paris (2) **22** (1950) 1951 pp. 746–752, 2 figs.

2794.—Steffan, J. Remarques sur quelques genres d'Haltichellinae (Hym. Chalcididae). Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 375–380, 2 figs.

2795.—Steffan, J. R. Note sur la classification des Brachymeriinae (Hym. Chalcididae). Bull. Soc. ent. France, Paris **55** (1950) 1951 pp. 146–150, 2 figs.

2796.—Steffan, J. R. Notes sur les genres *Xyphorachidia* nov. et *Rhynchochalcis* Cameron (Hym. Chalcididae). Bull. Soc. ent. France, Paris **56** 1951 pp. 34–39, 12 figs.

2797.—Steffan, J. R. Les espèces françaises d'Haltichellinae (Hyménoptères Chalcididae). Feuille Nat., Paris (N.S.) **6** 1951 pp. 1–7, 81–85, 24 figs.

2798.—Stegwee, D. Studies in cholinesterase in insects. Physiol. comp. oecol., The Hague **2** 1951 pp. 241–247, 3 figs.

2799.—Steinhaus, E. A. Report on diagnoses of diseased insects 1944–1950. Hilgardia, Berkeley, Cal. **20** 1951 pp. 629–678, 23 figs.

2800.—Steinhausen, W. Die Käferfauna des Rieseberg-Gebietes im nördlichen Harzvorland unweit Braunschweig. Beitr. Naturk. Niedersachs., Hanover **3** 1950 pp. 68–73. [Col.]

2801.—Steinler, F. W. & **Hiestand,** W. A. Rapid acclimatization of insects to anoxia, with special reference to the housefly. Science, Lancaster, Pa. **114** 1951 pp. 440–441.

2802.—Stelfox, A. W. On the identity of *Rhyssalus indagator* Haliday with *Dolops hastifer* and *D. aculeator* Marshall (Hym., Braconidae). Ent. mon. Mag., London **87** 1951 pp. 90–93.

2804.—Stelfox, A. W. & **Graham,** M. W. R. de V. Notes on the genus *Aspilota* (Hym., Braconidae, Alysiinae), with descriptions of five new species. Ent. mon. Mag., London **87** 1951 pp. 3–7, 11 figs.

2805.—Stelfox, A. W. & **Graham,** M. W. R. de V. Descriptions of two new species of *Aspilota* (Hym., Braconidae) from England. Ent. mon. Mag., London **87** 1951 pp. 222–223, 7 figs.

2806.—Stempffer, H. Description de quelques Lycaenidae (Lep.) nouveaux de la faune éthiopienne. Bull. Soc. ent. France, Paris **56** 1951 pp. 66–71, 4 figs.

2807.—Stempffer, H. Contribution à l'étude des Lycaenidae de la faune éthiopienne. Bull. Soc. ent. France, Paris **56** 1951 pp. 119–128, 5 figs. [Lep.]

Stempffer, H. *see* Bernardi & Stempffer.

2808.—Stephens, D. C. R. Variations in the sex ratio of the meadow brown butterfly *Maniola jurtina*. Mag. Blundell's Sch. sci. Soc. no. 6 1951 pp. 37–51. [Lep.]

2809.—Stern, C. & **Sherwood,** E. R. The migration of testis sheath cells in *Drosophila virilis*. Moderne Biol., Festschr. 60. Geburtst. Nachtsheim, Berlin 1950 pp. 236–240, 2 figs. [Dipt.]

Stern, C. *see* Sui Tong Fung & Stern.

2810.—Stevens, O. A. Native bees [contd.]. Bi–m. Bull. N. Dakota agric. Exp. Sta., Fargo 1951 **13** pp. 199–205, 2 figs.; **14** pp. 27–31, 3 figs., 59–64, 2 figs. [Hym.]

2811.—Steyn, J. J. The effect of low calcium, phosphorus or nitrogen on the lifecycle of red scale (*Aonidiella aurantii* Mask.). J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 165–170, 1 fig. [Hem.]

2812.—Steyskal, G. Insects feeding on plants of the *Toxicodendron*-section of the genus *Rhus* (poison oak, ivy, or sumac). Coleopt. Bull., Washington, D.C. **5** 1951 pp. 75–77.

2813.—Steyskal, G. C. The Dipterous fauna of tree trunks. Pap. Michigan Acad. Sci., Ann Arbor **35** (1949) 1951 pt. 2 Zool. pp. 121–134.

2814.—Steyskal, G. C. A new species of *Euparyphus* from Ontario (Diptera, Stratiomyidae). Proc. ent. Soc. Washington **53** 1951 pp. 273–274.

2815.—Steyskal, G. C. A new species of *Tetanocera* from Korea (Diptera : Sciomyzidae). Wasmann J. Biol., San Francisco **9** 1951 pp. 79–80, 1 fig.

Stockhammer, K. *see* Menzer & Stockhammer.

Stojanovich, C. J. *see* Ferris, G. F.

2816.—Stone, A. The *Rhagoletis* of roses (Diptera, Tephritidae). Proc. ent. Soc. Washington **53** 1951 pp. 45–48, 4 figs.

2817.—Stoneham, H. F. The butterflies of western Kenya with notes on allied forms etc. Parts 1–3. Papilionidae. Stoneham Mus. Publ., Kitale 1951 24 pp. [Lep.]

2818.—Storace, L. Su alcune specie italiane di *Anthrocera* Scop. (Lepidoptera Anthroceridae = Zygaenidae). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 10–17.

2819.—Storace, L. Su alcune forme del genere *Parnassius* Latr. (Lepidoptera, Rhopalocera). Boll. Soc. ent. ital., Genoa **81** 1951 pp. 81–83, 3 figs.

2820.—Storace, L. Recherches sur le groupe africain de *Papilio nireus* L. (Lepidoptera, Diurna). Lambillionea, Brussels **51** 1951 pp. 44–52.

Stott, G. H. *see* Gardner & Stott.

2821.—Stovell, T. H. A reflex photocopying box for books. Canad. Ent., Ottawa **83** 1951 pp. 147–151, 4 figs.

2822.—Strand, A. The Norwegian species of *Amischa* Thoms. (Col. Staph.). Norsk ent. Tidsskr., Oslo **8** 1951 pp. 219–224, 1 fig.

2823.—Strand, A. On the species of *Grynobius* Thoms. (Col. Anobiidae). Norsk ent. Tidsskr., Oslo **8** 1951 pp. 224–227, 1 fig.

2824.—Straneo, S. L. On some African Pterostichini (Coleoptera–Carabidae). Ann. Transv. Mus., Pretoria **21** 1951 pp. 419–425, 3 figs.

2825.—Straneo, S. L. Su alcuni Pterostichini (Coleoptera, Carabidae) nuovi o poco noti, del Congo belga. Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 285–313, 19 figs.

2826.—Straneo, S.–L. Osservazioni sul gen. *Brachygnathus* Perty (Coleoptera Carabidae). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 56, 8 pp.

2827.—Straneo, S. L. Résultats de la Mission Zoologique Suisse au Cameroun. Coleoptera Carabidae Pterostichinae. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1951 pp. 209–214, 9 figs.

2828.—Straneo, S. L. On some Central and South American Pterostichini (Coleoptera, Carabidae) in the Museum of Comparative Zoology. Psyche, Cambridge, Mass. **58** 1951 pp. 1–18, 1 pl.

2829.—Straneo, S. L. Sur la tribu des Metiini (Antarctiini auct.) (Coleoptera Pterostichidae). Rev. franç. Ent., Paris **18** 1951 pp. 56–88, 34 figs.

2830.—Straneo, S. L. Trois Ptérostichides nouveaux de l'Amérique méridionale des collections du Muséum national d'Histoire naturelle. Rev. franç. Ent., Paris **18** 1951 pp. 165–169, 3 figs. [Col.]

2831.—Straneo, S. L. Descrizione preliminare delle nuove specie raccolte dal Dr. Monard della Missione Scientifica Svizzera nel Camerun. Rev. suisse Zool., Geneva **58** 1951 pp. 387–389. [Col.]

2832.—Straneo, S. L. Un Caelostomide aveugle nouveau du Kivu (Col. Carabidae Pterostichinae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 219–221, 1 fig.

2833.—Straneo, S. L. Su alcuni Pterostichini nuovi o poco conosciuti del Congo belga. Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 236–242, 6 figs. [Col.]

2834.—Strawiński, K. Introductory studies on the biology of *Elasmucha ferrugata* F. (Hem.–Heteroptera). Ann. Univ. M. Curie Skłodowska, Lublin (C) **6** 1951 pp. 149–163, 1 pl.

2835.—Strenzke. K. Chironomiden von der bulgarischen Küste des Schwarzen Meeres. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 678–691, 5 figs. [Dipt.]

2836.—Strenzke, K. Eine südosteuropäische Art der Chironomiden-Gattung *Halliella* (Diptera). Dtsch. zool. Z., Hanover & Berlin **1** 1950 pp. 15–23, 8 figs.

2837.—Strenzke, K. Notizen über die Milben und Collembolen der unterirdischen Feuchtzone des Nord- und Ostseestrandes. Kieler Meeresforsch. **8** 1951 pp. 82–85, 1 pl.

Strenzke, K. *see* Thienemann & Strenzke.

Strenzke, R. *see* de Lesse, Strenzke & Thienemann.

2838.—Strickland, A. H. The entomology of swollen shoot of cacao. I, II. Bull. ent. Res., London 1951 **41** pp. 725–748 ; **42** pp. 65–103. [Hem., Hym.]

2839.—Strohecker, H. F. A new species of *Encymon* from the Solomon Islands (Coleoptera, Endomychidae). Amer. Mus. Novit., New York no. 1520 1951 2 pp.

2840.—Strohecker, H. F. Three new species of North American Orthoptera. Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 169–172, 5 figs.

2841.—Strohecker, H. F. New species of Oriental Endomychidae, with remarks on some previously known species (Coleoptera : Endomychidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 157–167, 10 figs.

2842.—Strömnaes, O. X-ray induced lethal mutations in several strains of *Drosophila melanogaster*. Hereditas, Lund **37** 1951 pp. 533–559, 6 figs. [Dipt.]

Stroyan, H. L. G. *see* Jackson, D. J.

2843.—Struve, R. Ein Beitrag zur Puliciden-Fauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen **31** 1939 pp. 551–553, 1 fig. [Siphonapt.]

2844.—Struve, R. Ein Nachtrag zur Lepidopteren-Fauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 554–557.

2845.—Struve, R. Ein Beitrag zur Coccinelliden-Fauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 558–566. [Col.]

2846.—Struve, R. Ein Beitrag zur Dipterenfauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 567–571.

2847.—Struve, R. Weitere Beiträge zur Fauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 818–834.

2848.—Stumper, R. Sur la sécretion d'acide formique par les fourmis. C.R. Acad. Sci., Paris **233** 1951 pp. 1144–1146, 2 figs. [Hym.]

2849.—Stumper, R. *Teleutomyrmex schneideri* Kutter (Hym. Formicid.). II. Mitteilung. Ueber die Lebensweise der neuen Schmarotzerameise. Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 129–152, 7 figs.

2850.—Stumper, R. & **Kutter,** H. Sur l'éthologie du nouveau myrmécobionte *Epimyrma stumperi* (nov. spec. Kutter). C.R. Acad. Sci., Paris **233** 1951 pp. 983–985, 2 figs. [Hym.]

2851.—Sturtevant, A. H. A map of the fourth chromosome of *Drosophila melanogaster*, based on crossing over in triploid females. Proc. nat. Acad. Sci. U.S.A., Washington, D.C. **37** 1951 pp. 405–407. [Dipt.]

2852.—Sturtevant, A. H. The evolution and function of genes. Rep. Smithson Instn., Washington **1947–48** [1949] pp. 293–303, 2 figs.

2853.—Suffern, C. Notes on *Sympetrum striolatum* Charpentier (Odonata). Ent. Gaz., London **2** 1951 pp. 186–190.

2854.—Sui Tong Fung & **Stern,** C. The seration of fourth chromosome loci in *Drosophila melanogaster*. Proc. nat. Acad. Sci. U.S.A., Washington, D.C. **37** 1951 pp. 403–404. [Dipt.]

2855.—[Sukhova, M. N.] New data on the ecology and epidemiological importance of the blue meat-flies *Calliphora uralensis* Vill. and *Calliphora erythrocephala* Meig. (Diptera, Calliphoridae). [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 90–94, 2 figs.

Sullivan, C. R. *see* Wellington, Sullivan & Green.

2856.—Suomalainen, E. Parthenogenesis in animals. Advances Genet., New York **3** 1950 pp. 193–253.

2857.—Sutton, K. P. & **Millspaugh,** D. D. A revision of the list of Tabanidae (Diptera) known to occur in Iowa. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [? 1951] pp. 535–536.

2858.—Sutton, M. F. On the food, feeding mechanism and alimentary canal of Corixidae (Hemiptera, Heteroptera). Proc. zool. Soc. London **121** 1951 pp. 465–499, 21 figs.

2859.—Suzuki, C., **Karasawa,** T., **Kimura,** R. & **Motomura,** A. CO_2 concentration in the cavity of undried cocoon. (2) Comparison between the observed and the theoretical values. [In Japanese with English summary.] Sci. Bull. Fac. Agric. Kyushu Univ., Fukuoka **13** 1951 pp. 363–366, 1 fig.

2860.—Swain, H. D. The British history, distribution, and life-history of *Parascotia fuliginaria*, the waved black moth. Ent. Gaz., London **1** 1950 pp. 186–200, 15 figs. [Lep.]

2861.—Swanepoel, D. A. A new species of *Cupido* (Lycaenidae) from Basutoland. J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 57–58, 2 figs. [Lep.]

Sweadner, W. R. *see* Avinoff & Sweadner.

Sweetman, H. L. *see* Ghani & Sweetman.

2862.—Syms, E. E. Notes on British snake-flies. Trans. S. Lond. ent. nat. Hist. Soc. **1949-50** 1951 pp. 176–178, 3 pls. [Megalopt.]

2863.—Synave, H. Catalogue des Fulgoroidea de Belgique (Hemiptera–Homoptera). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 136–140.

2864.—Synave, H. Catalogue des Cercopidae, Membracidae, Ulopidae et Cicadidae de Belgique (Hemiptera–Homoptera). Bull. Ann. Soc. ent. Belg., Brussels **87** 1951 pp. 182–185.

Synave, H. *see* Lallemand & Synave.

2865.—Szelényi, G. von. *Bethylus struvei* n. sp., eine neue Bethylide (Hym. Proctotr.) aus der Fauna von Borkum. Abh. naturw. Ver. Bremen **31** (1939–1940) 1941 pp. 835–838, 1 fig.

2866.—Szeliga-Mierzeyewski, W. von. Verzeichnis der Käfer Ösels. KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 180–230. [Col.]

Táborský, K. *see* Hoberlandt & Táborský.

Tachikawa, T. *see* Yasumatsu & Tachikawa.

2867.—Takagi, S. Tabanidae of North Manchuria. Rep. Inst. Horse-Dis. Manchoukuo, Hsinking no. 2 1941 94 pp. 8 col. pls. 55 figs. [Dipt.]

2868.—Takahashi, R. List of the Aphididae of the Malay Peninsula with descriptions of new species (Homoptera). Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 587–607, 12 figs.

2869.—Takahashi, R. On the myrmecophyte, *Macaranga triloba* (Euphorbiaceae), and its ant in Malaya. [In Japanese with English summary.] Bull. biogeogr. Soc. Japan, Tokyo **15** 1951 pp. 11–12. [Hym.]

2870.—Takahashi, R. Beetles with neotenic females. [In Japanese.] Collecting and Breeding, Tokyo **13** 1951 pp. 306–310, 3 figs. [Col.]

2871.—Takahashi, R. Some mealy bugs (Pseudococcidae, Homoptera) from the Malay Peninsula. Indian J. Ent., New Delhi **12** (1950) 1951 pp. 1–22, 12 figs.

2872.—Takahashi, R. Some species of Coccidae from the Riouw Islands—Part II (Homoptera). Insecta matsum., Sapporo **17** 1951 pp. 103–112, 9 figs.

2873.—Takahashi, R. Description of six interesting species of Aleyrodidae from Malaya (Homoptera). Kontyû, Tokyo **19** 1951 pp. 1–8, 6 figs.

2874.—Takahashi, R. Some species of Aleyrodidae (Homoptera) from Madagascar with a species from Mauritius. Mém. Inst. sci. Madagascar, Paris **6A** 1951 pp.353–385, 19 figs.

2875.—Takahashi, R. Some species of Aleyrodidae (Homoptera) from Japan. Misc. Rep. Res. Inst. nat. Resourc. Tokyo no. 19–21 1951 pp. 19–25, 4 figs.

2876.—Takahashi, R. Three new myrmecophilous scale insects from the Malay Peninsula (Homoptera). Mushi, Fukuoka **22** 1951 pp. 1–8, 4 figs.

2877.—Takahashi, R. Two new myrmecophilous Coccidae from Thailand (Siam). Tenthredo, Kyoto **3** 1941 pp. 201–207, 2 figs. [Hem.]

2878.—Takahashi, R. Some species of Aleyrodidae, Aphididae, and Coccidae from Micronesia (Homoptera). Tenthredo, Kyoto **3** pp. 208–220 (1941) 3 figs., 349–358 (1942) 2 figs.

2879.—Takaoka, M. Studies of the metamorphosis in insects. I. Partial puparium in *Drosophila melanogaster*. Sci. Rep. Tôhoku Univ. (4) **19** 1951 pp. 88–90, 2 figs. [Dipt.]

2880.—Takeda, H. Studies on the antennal reaction of eri-silkworm moth (*Philosamia cynthia ricini*) to the artificial light. [In Japanese with English summary.] Kontyû, Tokyo **19** 1951 pp. 10–14. [Lep.]

2881.—Takeuchi, K. A systematic study of the suborder Symphyta (Hymenoptera) of the Japanese Empire (IV). Tenthredo, Kyoto **3** 1941 pp. 230–274, 3 figs.

2882.—Takeuchi, K. New and unrecorded sawflies from Shikoku, Japan (Hymenoptera : Symphyta). Trans. Shikoku ent. Soc. **2** 1951 pp. 57–62.

2883.—Takeuchi, K. & **Tokunaga,** M. Morphological study of head and mouth-parts of a remarkable saw-fly, *Nipponorhynchus mirabilis* Takeuchi. Tenthredo, Kyoto **3** 1941 pp. 275–291, 7 figs. [Hym.]

2884.—Takeya, C. New *Stephanitis*-species from Japan (Hemiptera : Tingidae). Sci. Bull. Fac. Agric. Kyushu Univ., Fukuoka **13** 1951 pp. 58–62, 2 figs.

Talbot, G. *see* Rosenberg & Talbot.

2885.—Talbot, M. Populations and hibernating conditions of the ant *Aphaenogaster* (*Attomyrma*) *rudis* Emery (Hymenoptera : Formicidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 302–307, 1 fig.

2886.—Tamanini, L. Risultati della specizione scientifica zoologica del Museo nazionale di Praha fatta in Turchia. 3. Hemiptera-Heteroptera. II. *Velia filippii* Tam. *anatolica* subsp. nova (Veliidae). Acta ent. Mus. nat. Pragae **26** 1948 no. 355, 3 pp., 18 figs.

2887.—Tamanini, L. 3° Contributo allo studio del genere *Velia* Latr. (Hemipt.-Heteropt., Veliidae). Acta ent. Mus. nat. Pragae **26** 1949 no. 366 10 pp. 4 figs.

2888.—Tamanini, L. Sull' *Aradus dissimilis* Costa e l' *A. depressus* e sui caratteri degli organi genitali degli *Aradus* (Hemipt. Heteropt.). Annu. Ist. Mus. Zool. Univ. Napoli **2** 1950 no. 4, 8 pp. 21 figs.

2889.—Tamanini, L. Valore sistematico del *Lygus basalis* Costa e caratteri che lo differenziano dal *L. kalmi* e *L. campestris* L. (Hemipt. Heter., Miridae). Annu. Ist. Mus. Zool. Univ. Napoli **3** 1951 no. 4 pp. 1–18, 12 figs.

2890.—Tamanini, L. Gli *Stictopleurus* italiani (Heteroptera, Corixidae). Mem. Soc. ent. ital., Genoa **30** 1951 pp. 77–91, 32 figs.

2891.—Tamino, G. Osservazioni sul fenomeno del salto negli Ortotteri. Arch. zool. (ital.), Turin **35** 1950 pp. 265–288, 1 fldg. table, 9 figs.

Tams, W. H. T. *see* Roepke, W.

2892.—Tandan, B. K. Mallophagan parasites from Indian birds. Part I. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 802–813, 13 figs.

Tange, H. *see* Kano, Sato & Tange.

2893.—Tanner, V. M. Notes on some Cicindelidae of the western United States and the South Pacific Islands with a description of a new species. Gt. Basin Nat., Provo **11** 1951 pp. 47–51. [Col.]

2894.—[Tarvit, I. A.] Gaseous exchange in the sandfly *Phlebotomus papatasii* Scop. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **81** 1951 pp. 1159–1161, 4 figs. [Dipt.]

Taufflieb, R. *see* Defromont, Lavabre & Taufflieb.

2895.—Taylor, F. H. The Culicidae of Australia. I. Trans. ent. Soc. London **1913** 1914 pp. 683–708, 4 pls. [Dipt.]

2896.—Taylor, J. S. British Sphingidae in South Africa. Ent. Rec., London **63** 1951 pp. 16–18. [Lep.]

2897.—Taylor, J. S. Notes on Lepidoptera in the eastern Cape Province (Part II). J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp.94–126, 2 pls., 1 fig.

2898.—Taylor, L. R. An improved suction trap for insects. Ann. appl. Biol., London **38** 1951 pp. 582–591, 1 pl. 2 figs.

2899.—[Telenga, N. A.] A survey of the fauna of the family Braconidae (Hymenoptera) of Tadzhikistan. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 381–388, 1 fig.

2900.—[Teplyakova, M. Ya.] Développement postembryonnaire des organes génitaux internes d'*Eurygaster integriceps* au cours du cycle annuel dans les régions méridionales européene et asiatique de l'URSS. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 81–119, 6 figs. [Hem.]

2901.—[Teterovskaya, T. O.] The influence of the humidity of the substratum on the distribution in it of

the larvae of *Musca domestica vicina* Macq. [In Russian.] Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1949 pp. 262–277. [Dipt.]

2902.—Théodoridès, J. *Rhabditis* et *Diplogaster* (Nématodes Anguillulata) à larves commensales ou parasites de Coléoptères, nouveaux pour la France. Bull. Soc. zool. France, Paris **76** 1951 pp. 64–67.

2903.—Théodoridès, J. & **Dewailly,** P. Nouvelle observation de phorésie de *Anthicus fairmairei* Bris. (Col. Anthicidae) sur un *Meloe* (Col. Meloidae) et remarques sur l'attirance des Anthices par les Meloides. Vie et Milieu, Paris **2** 1951 pp. 60–64.

Théodoridès, J. *see* Balazuc, Miré, Sigwalt & Théodoridès; Delamare-Debouteville & Théodoridès; Jolivet & Théodoridès.

2904.—Thienemann, A. *Tanytarsus*-Studien II. Die Subsectio *Paratanytarsus*. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 595–632, 19 figs. [Dipt.]

2905.—Thienemann, A. Chironomiden aus der unteren Peene gesammelt und gezüchtet von Fr. Krüger. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 633–644, 8 figs. [Dipt.]

2906.—Thienemann, A. Das Schwärmen von *Chironomus bathophilus* K. (=*anthracinus* Zett.) im Plöner Seengebiet 1918–1950. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 692–704, 1 fig. [Dipt.]

2907.—Thienemann, A. & **Strenzke,** K. Larventyp und Imaginalart bei *Chironomus* s.s. Ent. Tidskr., Stockholm **72** 1951 pp. 1–21, 12 figs. [Dipt.]

Thienemann, A. *see* de Lesse, Strenzke & Thienemann.

2908.—Thomann, H. Die Gattung *Endrosa* in Graubünden (Lep. Arctiidae). Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 413–437, 1 col. pl. 8 figs.

2909.—Thomas, H. T. Some species of the blow-fly genera *Chrysomyia* R.-D., *Lucilia* R.-D., *Hemipyrellia* Tnsd. and *Calliphora* R.-D. from South-Eastern Szechuan, China. Proc. zool. Soc. London **121** 1951 pp. 147–200, 176 figs. [Dipt.]

2910.—Thomas, M. Psychologie–Physiologie. L'une ou l'autre ou l'une et l'autre ? Nat. belges, Brussels **11** 1951 pp. 179–184.

Thompson, R. P. *see* Brown, Sarkaria & Thompson.

2911.—Thompson, W. R. (Ed.) A catalogue of the parasites and predators of insect pests. Section **1.** Parasite host catalogue. Part II. Parasites of the Neuroptera, Odonata, Orthoptera, Psocoptera, Siphonaptera and Thysanoptera (iv and 35 pp.) Section 2. Host parasite catalogue. Part I. Hosts of the Coleoptera and Diptera (ii+147 pp.) Ottawa, Ont., Commonw. Bur. biol. Contr. 1951 multigraph.

2912.—Thompson, W. R. The time factor in biological control. Canad. Ent., Ottawa **83** 1951 pp. 230–240.

2913.—Thompson, W. R. The specificity of host relations in predacious insects. Canad. Ent., Ottawa **83** 1951 pp. 262–269.

2914.—Thomsen, M. Weismann's ring and related organs on larvae of Diptera. Bidr. Skrift., Copenhagen **6** 1951 no. 5, 32 pp. 14 pls. 3 figs.

2915.—Thomson, R. C. Muirhead. Mosquito behaviour in relation to malaria transmission and control in the tropics. London, Edward Arnold & Co. 1951 viii and 219 pp. 16 pls. 22 figs.

2916.—Thomson, R. C. M. Studies on salt-water and fresh-water *Anopheles gambiae* on the East African coast. Bull. ent. Res., London **41** 1951 pp. 487–502, 1 pl. 2 maps. [Dipt.]

2917.—Thurman, E. B., **Haeger,** J. S. & **Mulrennan,** J. A. The taxonomy and biology of *Psorophora* (*Janthinosoma*) *johnstonii* (Grabham, 1905) (Diptera : Culicidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 144–157, 4 figs.

2918.—Tiensuu, L. Notes on the smallreed Coccid, *Eriopeltis lichtensteini* Sign. (Hem., Coccoidea, Lecanoidae) and its natural enemies in Finland. Ann. ent. fenn., Helsinki **17** 1951 pp. 3–10, 1 fig.

2919.—Tilden, J. W. Biological notes on two species of Chrysopidae (Neuroptera). Ent. News, Lancaster, Pa. **62** 1951 pp. 224–226.

2920.—Tilden, J. W. The insect associates of *Baccharis pilularis* De Candolle. Microentomology, Stanford Univ. **16** 1951 pp. 149–185.

2921.—Tilden, J. W. Observations on *Rhopalomyia californica* Felt (Diptera : Itonididae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 20–22.

2922.—Tilden, J. W. A note on the manner of feeding of *Agulla adnixa* Hagen (Raphidiodea : Raphidiidae). Pan-Pacif. Ent., San Francisco **27** 1951 p. 192. [Megalopt.]

2923.—Tilden, J. W. Microlepidoptera associated with *Baccharis pilularis*. II. Tortricidae, Phaloniidae, Gelechiidae. Wasmann J. Biol., San Francisco **9** 1951 pp. 239–254.

Tillinghast, M. G. *see* Hartung & Tillinghast.

2924.—Timberlake, P. H. New species of *Anthophora* from the western United States (Hymenoptera, Apoidea). J. New York ent. Soc. **59** 1951 pp. 51–62.

2925.—Timberlake, P. H. New and little-known bees of the family Andrenidae from California. Proc. U.S. nat. Mus., Washington, D.C. **101** 1951 no. 3281 pp. 373–414. [Hym.]

2926.—Timberlake, P. H. Western bees of the genus *Colletes* (Hymenoptera : Apoidea). Wasmann J. Biol., San Francisco **9** 1951 pp. 181–238.

2927.—Timmermann, G. Investigations on some Ischnoceran bird lice (genus *Saemundssonia*) parasitic on waders. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 390–401, 8 figs. [Malloph.]

2928.—Timmermann, G. Beiträge zur Kenntnis der Ektoparasitenfauna isländischer Säugetiere und Vögel. 3. u. 4. Mitteilungen. Fn. islandica, Reykjavik no. 1 1950 8 pp. 5 figs. ; no. 2 1950 8 pp. 5 figs. [Malloph.]

2929.—Timmermann, G. Beiträge zur Kenntnis der Ektoparasitenfauna isländischer Säugetiere und Vögel. 5. Mitteilung : Ueber isländische Raubvogelläuse. [In Icelandic with German summary.] Náttúrufraedingurinn **20** 1950 pp. 177–182, 2 figs. [Malloph.]

2930.—Timmermann, G. *Saemundssonia meridiana* n. sp., eine bemerkenswerte neue Mallophagenart von *Sterna anaethetus* Scopoli. Parasit. News, Reykjavik Ser. 1 no. 1 1950 4 pp. 1 fig. [Malloph.]

2931.—Timmermann, G. Die Mövenkneifer. Eine Revision sämtlicher bei echten Möven schmarotzenden Federlinge der Gattung *Saemundssonia* Tim., 1936. Parasit. News, Reykyavik Ser. 2, no. 1 1951 12 pp. 1 fig. [Malloph.]

2932.—Timon-David, J. Diptères des Pyrénées ariégeoises. Notes écologiques et biogéographiques. Bull. Soc. Hist. nat. Toulouse **85** 1950 pp. 11–25, 5 figs.

2933.—Timon-David, J. Observations sur la biologie et le comportement de *Laphria ephippium* Fabr. en Provence (Diptera Asilidae). Entomologiste, Paris **7** 1951 pp. 133–137, 2 figs.

2934.—Timon-David, J. Contribution à l'étude des Asilidae de Madagascar. I. Une nouvelle espèce de *Proagonistes* Loew (Diptères). Nat. malgache, Tananarive **3** 1951 pp. 159–166, 4 figs.

2935.—Ting, P. C. An African earwig in California (Dermaptera, Labiduridae). Bull. Dep. Agric. Cal., Sacramento **40** 1951 pp. 4–9, 1 pl. 1 fig.

2936.—Tippmann, F. Eine Harlekinade am Rio Tulumayo. Ent. Z., Frankfurt a. M. **61** 1951 pp. 137–142, 2 figs. [Col.]

2937.—Tippmann, F. T. Beiträge zur Kenntnis der Cerambyciden (Col.). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 291–328, 8 pls. 3 figs. 2 fldg. tables.

Tipton, V. J. *see* Traub & Tipton.

2938.—Tischler, W. Ein biozönotischer Beitrag zur Besiedlung von Steilwänden. Verh. dtsch. zool. Ges., Leipzig **1950** 1951 pp. 214–229, 7 figs.

2939.—Tischler, W. Vergleichend-biozönotische Untersuchungen an Waldrand und Feldhecke. Zool.

Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 1000–1015.

2940.—Titschack, E. Beiträge zur Fauna Perus. Nach der Ausbeute der Hamburger Südperu-Expedition 1936, anderer Sammlungen, wie auch auf Grund von Literaturangaben. Band 1. Reisebericht. Jena, Gustav Fischer 1951 [iv+] 403 pp., 223 figs., 1 map.

2941.—Tjeder, B. Mecopteren aus Fukien. Bonn. zool. Beitr. **1** (1950) 1951 pp. 286–290, 4 figs.

2942.—Tokunaga, M. Some Javanese biting midges (Ceratopogonidae, Diptera). Sci. Reps Saikyo Univ., Kyoto Agric. no. 1 1951 pp. 101–110, 1 pl. 3 figs.

2943.—Tokunaga, M., **Tsujita,** M. & **Yamazaki,** A. Studies on the larvae of the Tenthredinidae (II). Morphological study on a rosaceous leaf-feeder sawfly, *Arge nigrinodosa* Motschulsky. Mushi, Fukuoka **22** 1951 pp. 17–24, 2 pls. [Hym.]

Tokunaga, M. *see* Takeuchi & Tokunaga.

2944.—Toledo Piza, S. de. The present status on the question of the kinetochore. Genetica iberica, Madrid **2** 1950 pp. 193–198. [Hem.]

2945.—Toledo Piza, S. de. Um par de antossômios heteromorfos no gafanhoto sul-americano *Zoniopoda iheringi* Pict. et Sauss. (Acrididae–Cyrtacanthacrinae). Sci. genet., Torino **4** 1951 pp. 73–78, 7 figs. [Orth.]

2946.—Toledo Piza, jr., S. de. Breve notícia acerca dos cromossômios de *Ischyra punctinervis* Brunner e *Philophyllia guttulata* Stål (Orthoptera, Phaneropteridae). Folia clin. biol., São Paulo **16** (1950) 1951 pp. 93–95, 5 figs.

2947.—Toll, S. *Tortrix paleana* Hb. et quelques-unes de ses races. Bull. Soc. ent. Mulhouse **1951** 1951 pp. 45–49, 9 figs. [Lep.]

2948.—Tomšík, B. Czechoslovak Inostemmini—the parasites of Cecidomyidae. [In Czech with English summary.] Ent. Listy, Brno **13** 1951 pp. 49–64, 34 figs. [Dipt.]

2949.—Tomšík, B. & **Povolný,** D. Contribution to the knowledge of nutrition of silk-worm (*Bombyx mori* L., Lep.). [In Czech with English summary.] Ent. Listy, Brno **13** 1951 pp. 65–72, 5 figs.

Tooren, A. J. van *see* Ruiter, Wolvekamp & Tooren.

Tordo, C. G. *see* Castel-Branco & Tordo.

2950.—Torre y Callejas, S. L. de la. Additions to "A list supplementing Bates's 'Butterflies of Cuba'". Lep. News, New Haven **4** (1950) 1951 p. 72.

2951.—Torre y Callejas, S. L. de la. Sobre una nueva forma de *Nathalis iole* Boisduval (Lepidoptera, Pieridae). Mem. Soc. cubana Hist. nat., Havana **20** 1951 pp. 89–91, 1 pl.

2952.—Torre y Callejas, S. L. de la. Notas suplementarias a nuestro trabajo sobre el género *Danaus* (Lepidoptera, Rhopalocera). Mem. Soc. cubana Hist. nat., Havana **20** 1951 pp. 93–103.

2953.—Torre y Callejas, S. L. de la. A new butterfly from Cuba (Lepidoptera, Nymphalidae). Proc. ent. Soc. Washington **53** 1951 pp. 336–337, 2 figs.

2954.—Torres Cañamares, F. Una nueva especie de *Aedes* (Dipt. Cul.). Eos, Madrid **27** 1951 pp. 79–92, 6 figs.

2955.—Tóth, L. Die Rolle der Mikroorganismen in dem Stickstoff–Stoffwechsel der Insekten. Zool. Anz., Leipzig **146** 1951 pp. 191–197, 2 figs.

2956.—Toulechkoff, K. Etudes faunistiques d'Olympe de la Grèce (Insekta, Lepidoptera). [In Bulgarian with French summary.] Bull. Inst. zool. Acad. bulg. Sci., Sofia **1** 1951 pp. 305–328, 3 figs.

2957.—Touratier, G. A propos du mode de nutrition du *Nemobius sylvestris* (Bosc). Bull. Soc. zool. France, Paris **76** 1951 pp. 29–34, 4 figs. [Orth.]

2958.—Townes, H. A cabinet for Schmidt boxes. Coleopt. Bull., Washington, D.C. **5** 1951 pp. 21–27, 1 fig.

2959.—Townes, H. & M. A revision of the genera and of the Nearctic species of Grypocentrini (Hymenoptera, Ichneumonidae). Proc. ent.

Soc. Washington **53** 1951 pp. 301–313, 6 figs.

Townes, H. K. *see* Muesebeck, Krombein & Townes.

Townsend, G. F. *see* Smith & Townsend.

2960.—Townsend, L. H. The hibernation of *Bombus impatiens* Cresson (Hymenoptera : Bombidae). Ent. News, Lancaster, Pa. **62** 1951 pp. 115–116.

2961.—Toxopeus, L. J. On the collecting localities of some Linnaean types (Lepidoptera, Rhopalocera). Idea, Bogor **8** 1951 pp. 53–74, 1 pl. 1 map.

2962.—Toxopeus, L. J. Notes on the genus *Amathusia* F. (Lep., Rhop.). Idea, Bogor **9** 1951 pp. 9–23, 3 pls.

Toxopeus, L. J. *see* Kalis & Toxopeus.

Trapido, H. *see* Galindo, Carpenter & Trapido.

2963.—Traub, R. Fleas collected by the Chicago Natural History Museum Expedition to the Philippines, 1946–47. Proc. biol. Soc. Washington **64** 1951 pp. 1–24, 7 pls. [Siphonapt.]

2964.—Traub, R. *Hoogstraalia turdella*, a new genus and species of flea from the Philippines (Siphonaptera, Pygiopsyllidae, Pygiopsyllinae). Proc. ent. Soc. Washington **53** 1951 pp. 97–104, 11 figs.

2965.—Traub, R. & **Hoff,** C. C. Records and descriptions of fleas from New Mexico (Siphonaptera). Amer. Mus. Novit., New York no. 1530 1951 23 pp. 20 figs.

2966.—Traub, R. & **Tipton,** V. J. *Jordanopsylla allredi*, a new genus and species of flea from Utah (Siphonaptera). J. Wash. Acad. Sci. **41** 1951 pp. 264–270, 7 figs.

2967.—Travassos, L. Contribuição ao conhecimento dos Arctiidae. XXIII–XXVI. Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 43–47, 11 figs., 181–187, 17 figs., 249–253, 10 figs., 393–398, 19 figs. [Lep.]

2968.—Travassos, filho, L. Líquido para preservação das estruturas internas de Lepidópteros e demais insetos que habitualmente se montam em alfinetes. Arq. Zool., São Paulo **7** 1950 pp. 439–444, 1 pl.

2969.—Trehan, K. N. & **Butani,** D. K. Systematic position of *Chilo zonellus* Swinhoe and chaetotaxy of its larvae. Indian J. agric. Sci., Delhi **20** (1950) 1951 pp. 79–85, 3 pls. [Lep.]

2970.—Trembley, H. L. Pyloric spines in mosquitoes. J. nat. Malar. Soc., Savannah, Ga. **10** 1951 pp. 213–215, 3 figs. [Dipt.]

2971.—Troeder, J. Ueber die Kenntnis der Schmetterlingswelt Niedersachsens und die Aufgaben zu ihrer weiteren Erforschung. Beitr. Naturk. Niedersachs., Hanover no. 1 1948 pp. 26–30 ; no. 5 1949 pp. 20–21. [Lep.]

2972.—Troníček, E. Quelques espèces de papillons nouvelles pour la Bohême du bassin central de l'Elbe. Acta Soc. ent. Čsl., Prague **48** 1951 pp. 191–197. [Lep.]

2973.—[Trukhanov, L. F.] Morphologie d'*Eurygaster integriceps*. [In Russian ; French abstract received from C. Dupuis.] Vriednaia tcherepachka (*Eurygaster integriceps*), Moscow **1** 1947 pp. 10–34, 16 figs. [Hem.]

2974.—Tseng, S. Some cells found in the body of the scale insect, *Takahashia wuchangensis* Tseng. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1950 pp. 143–151, 5 figs. [Hem.]

2975.—Tseng Sheng & **Wu,** I. An ecological study of mosquitoes in Wuhan area. Bull. ent. Res., London **42** 1951 pp. 527–533. [Dipt.]

2975A.—Tsuda, M. Japanische Trichopteren. I. Systematik. Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942 pp. 239–339, 77 figs.

2976.—Tsujita, M. A new subspecies of *Agromyza nigrescens* Hendel (Diptera, Agromyzidae). Sci. Bull. Fac. Agric. Kyushu Univ., Fukuoka **13** 1951 pp. 53–57, 3 figs.

Tsujita, M. *see* Tokunaga, Tsujita & Yamazaki ; Umeya & Tsujita.

2977.—Tsunkei, K. Experimental analysis of the sensory cues working in the return to the nest of the Pompilidae (Solitary Hymenoptera).

Annot. zool. jap., Tokyo **23** 1950 pp. 75–84, 2 figs.

2978.—Tulloch, G. S. & **Shapiro,** J. E. Electron micrographs of antennal hairs of mosquitoes. Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 76–78, 4 figs.

2979.—Turček, F. J. The larva of *Oestromyia satyrus* parasitic in the vole *Microtus arvalis* Pall. (Hypoderm. Dipt.). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 240–241, 2 figs.

2980.—Turček, F. J. Galls and gall-insects as food of certain birds and mammals. Ann. ent. fenn., Helsinki **17** 1951 pp. 17–22, 10 figs.

2981.—Tuthill, L. D. Records and descriptions of some Micronesian Psyllidae (Homoptera). Pacific Sci., Honolulu **5** 1951 pp. 273–278, 6 figs.

2982.—Tuzet, O. & **Bournier,** A. Le spermatozoide de *Neoheegeria verbasci* (Osborn) (Insecte Thysanoptère). C.R. Acad. Sci., Paris **233** 1951 pp. 1316–1318, 1 fig.

2983.—Tykač, J. Sphragis ou sphragidoid chez les Lépidoptères. [In Czech with French summary.] Acta Soc. ent. Čsl., Prague **48** 1951 pp. 94–98, 7 figs.

2984.—Uchida, T. Zur Synonymie der japanischen Ichneumoniden. Insecta matsum., Sapporo **17** 1951 pp. 126–128. [Hym.]

2985.—Uchida, T. & **Hukusima,** S. Morphologische und ökologische Untersuchung von *Homorocoryphus jezoensis*. [In Japanese with German summary.] Oyo-Kontyû, Tokyo **4** 1948 pp. 196–209, 2 pls. [Orth.]

2986.—Uéno, Shun-ichi. Carabid beetles found in limestone caves of Japan. Ent. Rev. Japan, Osaka **5** 1951 pp. 83–89, 1 pl. [Col.]

2987.—Uhler, L. D. Biology and ecology of the goldenrod gall-fly, *Eurosta solidaginis* (Fitch). Mem. Cornell agric. Exp. Sta., Ithaca no. 300 1951 51 pp. 44 figs. [Dipt.]

2988.—Uhmann, E. Hispinae aus dem Britischen Museum. VI. Teil. Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 66–76, 4 figs. [Col.]

2989.—Uhmann, E. *Brontispa chalybeipennis* Zacher und *Brontispa palauensis* (Esaki & Chûjô). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 185–188, 2 figs. [Col.]

2990.—Uhmann, E. Australasiatische Hispinae aus dem Zoologischen Museum der Universität Berlin. 5. Teil. Leptispini, Eurispini, Pharangispini, Chaeridionini, Coelaenomenoderini, Promecothecini. Ent. Bl., Krefeld **47** 1951 pp. 22–39, 4 figs. [Col.]

2991.—Uhmann, E. Résultats de la Mission Zoologique Suisse au Cameroun. Hispines. Mém. Inst. franç. Afr. noire Cent. Cameroun, Douala Sci. nat. no. 1 1951 p. 229. [Col.]

2992.—Ullyett, G. C. Insects, man and the environment. J. econ. Ent., Menasha **44** 1951 pp. 459–464.

2993.—Ulmer, G. Köcherfliegen (Trichopteren) von den Sunda-Inseln (Teil I). Arch. Hydrobiol., Stuttgart Suppl. **19** 1951 pp. 1–528, 15 pls.

2994.—Ulrich, H. Ergebnisse einer partiellen Röntgenbestrahlung von *Drosophila*-Eiern. I. Mitteilung. Biol. Zbl., Leipzig **70** 1951 pp. 274–285, 5 figs. [Dipt.]

2995.—Ulrich, H. Röntgenteilbestrahlung von *Drosophila*-Eiern. Naturwissenschaften, Berlin **38** 1951 p. 121, 2 figs. [Dipt.]

2996.—Ulrich, H. Abtötung von *Drosophila*-Eiern verschiedenen Alters durch partielle Röntgenbestrahlung. Naturwissenschaften, Berlin **38** 1951 pp. 530–531, 1 fig. [Dipt.]

2997.—Umeya, Y. Studies on embryonic hibernation and diapause in insects. Proc. Japan Acad., Tokyo **26** 1950 pp. 1–9, 3 figs.

2998.—Umeya, Y. & **Omura,** S. Studies on the sterility in the silkworm. I. On the abnormal spermatophore. [In Japanese with English summary.] Bull. sericult. Exp. Sta., Tokyo **13** 1950 pp. 63–78, 1 pl. 1 fig. [Lep.]

2999.—Umeya, Y. & **Tsujita,** M. Genetical and histo-cytological studies on the lethal yellow larva in the silkworm. [In Japanese with English summary.] Bull. sericult. Exp. Sta., Tokyo **13** 1951 pp. 329–345, 2 figs. [Lep.]

3000.—Usinger, R. L. A revised classification of Pacific Island *Cyrtorhinus* with a new species from Fiji (Hemiptera, Miridae). Comment. biol., Helsingfors **12** 1951 no. 8 pp. 1–5, 6 figs.

3001.—Usinger, R. L. Heteroptera of the Marshall Islands. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 315–321. [Hem.]

Utrobina, N. M. *see* Aleĭnikova & Utrobina.

3002.—Uvarov, P. B. Some synonymy in the genus *Locusta* Linné. Bull. Office nat. Anti-acrid., Paris no. 1 1951 pp. 1–4. [Orth.]

3003.—Vachon, M. A propos d'une association phorétique : Coléoptère–Acariens–Pseudoscorpions. Bull. Mus. Hist. nat., Paris (2) **22** (1950) 1951 pp. 728–733, 1 fig.

3004.—Vago, C. Les possibilités de diagnostic de la polyèdrie dans les cadavres de *Bombyx mori* L. en voie de décomposition. Mikrokosmos, Vienna **6** 1951 pp. 291–294. [Lep.]

3005.—Vago, C. Phénomènes de "Latentia" dans une maladie à ultravirus des insectes. Rev. canad. Biol., Montreal **10** 1951 pp. 299–308. [Hym.]

3006.—Vago, M. C. Polyèdrie du *Bombyx mori* L. aux symptômes atypiques. Bull. Soc. ent. France, Paris **56** 1951 pp. 108–111. [Lep.]

3007.—Vago, S. C. Mise en évidence des polyèdres par colorations négatives dans le diagnostic des maladies à ultravirus d'insectes. Mikroscopie, Vienna **6** 1951 pp. 228–231, 1 fig.

Vago, S. *see* Drilhon, Busnel & Vago.

3008.—Vaillant, F. Contribution à l'étude des Trichoptères du genre *Stactobia* MacLachlan. Bull. Soc. zool. France, Paris **76** 1951 pp. 13–17, 18 figs.

3009.—Vaillant, F. Les larves de *Stactobia* MacLachlan (Trichoptères). Bull. Soc. zool. France, Paris **76** 1951 pp. 205–208, 16 figs.

Vaillant, F. *see* Bertrand & Vaillant.

3010.—Valkeila, E. A method of rearing Hymenoptera. [In Finnish with English summary.] Ann. ent. fenn., Helsinki **17** 1951 pp. 85–88.

3011.—Valle, K. J. Trichoptera aus Petsamo und anderen Teilen Lapplands in den Sommern 1928–1930 gesammelt. Ann. ent. fenn., Helsinki **17** 1951 pp. 22–25.

3012.—Valletta, A. Additions to the list of Lepidoptera, Heterocera, of the Maltese Islands. Entomologist, London **84** 1951 pp. 64–66.

3013.—Valletta, A. Recent additions to the known Lepidoptera (Heterocera) of the Maltese Islands. Entomologist, London **84** 1951 pp. 255–257.

van der Bosch *see* Bosch.

van der Drift *see* Drift.

van Dinther *see* Dinther.

3014.—Van Dyke, E. C. New species of Coleoptera from North America. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 27–35.

3015.—Van Lith, J. P. Over de biologie van het geslacht *Psenulus* Kohl (Hym. Sphec.). Ent. Ber., Amsterdam **13** 1951 pp. 211–217.

3016.—Vanschuytbroeck, P. Contribution à l'étude des Sphaeroceridae africains (Diptera Acalyptratae). (2e–3me notes). Bull. Inst. R. Sci. nat. Belg., Brussels **27** 1951 no. 33, 16 pp. 3 figs., no. 41, 20 pp. 4 figs.

3017.—Vanschuytbroeck, P. Dolichopodidae (Diptera Brachycera Orthorrhapha). Explor. Parc nat. Albert, Miss. de Witte 1933–35, Brussels fasc. 74 1951 153 pp. 56 figs.

3018.—Vanschuytbroeck, P. Rectification de nomenclature. Rev. Zool. Bot. afr., Brussels **45** 1951 p. 99. [Dipt.]

3019.—Vansell, G. H. Honey-bee activity on Ladino clover florets. J. econ. Ent., Menasha **44** 1951 p. 103. [Hym.]

van Someren *see* Someren.

3020.—Van Son, G. Three new species of *Thestor* Hübner (Lepidoptera–Lycaenidae) from the western Cape Province. Ann. Transv. Mus., Pretoria **21** 1951 pp. 435–445, 1 pl. 5 figs.

van Tooren *see* Tooren.

3021.—Van Zwaluwenburg, R. H. Some Elaterid beetles from New Guinea. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 323–325. [Col.]

3022.—Vargas, L. Nota sobre la pulga *Polygenis vazquezi* n. sp. de México. Medicina, México **31** 1951 pp. 461–464, 1 fig. [Siphonapt.]

3023.—Vargas, L. & **Díaz Nájera,** A. Notas sobre sistemática y morfología de Simúlidos. Rev. Soc. mexicana Hist. nat., Mexico **12** 1951 pp. 123–208, 77 figs. [Dipt.]

3024.—Vári, L. Nederlandse Lepidoptera. Ent. Ber., Amsterdam **13** 1951 pp. 193–198, 7 figs.

3025.—Varin, G. Contribution à l'étude des races des Satyridae de France et d'Afrique du Nord. [Contd.] Rev. franç. Lép., Paris **12** (1950) 1951 pp. 341–347. [Lep.]

3026.—Vaurie, P. Five new subspecies of tiger beetles of the genus *Cicindela* and two corrections (Coleoptera, Cicindelidae). Amer. Mus. Novit., New York no. 1479 1951 12 pp. 1 fig.

3027.—Vaurie, P. Revision of the genus *Calendra* (formerly *Sphenophorus*) in the United States and Mexico (Coleoptera Curculionidae). Bull. Amer. Mus. nat. Hist., New York **98** 1951 pp. 29–186, 116 figs.

3028.—Vaurie, P. Revision of the genus *Entimus* with notes on other genera of Entimini (Coleoptera Curculionidae). Rev. chil. Ent., Santiago **1** 1951 pp. 147–170, 17 figs.

3029.—Vázquez G., L. Observaciones sobre Piéridos mexicanos. An. Inst. Biol., Mexico **21** (1950) 1951 pp. 417–429, 2 figs. [Lep.]

3030.—Vázquez G., L. Un nuevo psíquido mexicano del género *Oiketicus*. An. Inst. Biol., Mexico **22** 1951 pp. 323–333, 3 pls. 5 figs. [Lep.]

3031.—Vecchi, A. & **Giavarini,** I. Ricerche sui caratteri razziali dell'Ape domestica. Boll. Ist. Ent. Bologna **18** 1950 pp. 1–13, 4 figs. [Hym.]

3032.—Venturi, F. Notulae dipterologicae. IV. Sulla attribuzione generica della *Pseudonapomyza dianthicola* Vent. (Dipt. Agromyzidae). Redia, Florence **36** 1951 pp. 433–437.

3033.—Verbeke, J. Taeniapterinae (Diptera, Cyclorrhapha). Fam. Micropezidae. Explor. Parc nat. Albert, Miss. de Witte (1933–1935), Brussels no. 72 1951 106 pp. 60 figs.

3034.—Verdier, P. & **Quézel,** P. Les populations de Carabiques dans la région littorale languedocienne. Leurs rapports avec le sol et sa couverture végétale. Vie et Milieu, Paris **2** 1951 pp. 69–94, 4 pls. 1 fig. [Col.]

Verdier, P. *see* Quézel & Verdier.

3035.—Verhoeff, P. M. F. Notes on *Astata* Latreille (Hymenoptera Sphecoidea). Zool. Meded., Leiden **31** 1951 pp. 149–164, 13 figs.

3036.—Verity, R. Le farfalle diurne d'Italia. Volume quarto. Divisione Papilionida. Sezione Libytheina, Danaina e Nymphalina: Famiglie Apaturidae e Nymphalidae. Florence, Casa editrice Marzocco 1950 xxiv and 380 pp. 14 figs.; 1951 23 pls. (16 col.) [Lep.]

3037.—Verrier, M. L. Ephéméroptères de Côte d'Ivoire. Bull. Soc. ent. France, Paris **56** 1951 pp. 45–47, 1 fig.

3038.—Verrier, M. L. Ecologie et répartition des Ephéméroptères de Massif central. C.R. Acad. Sci., Paris **232** 1951 pp. 1700–1702.

3039.—Verrier, M. L. Ephéméroptères. Explor. Parc nat. Albert, Miss. Damas (1935–36), Brussels no. 20 1951 12 pp. 3 figs.

3040.—Verrier, M. L. Note écologique et biogéographique sur *Liponeura cinerascens* Lw. (Diptère Blépharocérides). Feuille Nat., Paris (N.S.) **6** 1951 pp. 13–14.

3041.—Viado, G. B. Reproductive capacity of the tomato lady-beetle. Philipp. Agric., Los Baños **34** 1951 pp. 202–212, 1 pl. [Col.]

3042.—Viamonte, J. M. R. & **Castro,** M. Estudio de la morfología de la armadura faríngea de algunos anofelinos (Dipt. Culic.). Rev. Sanid. Hig. públ., Madrid **25** 1951 pp. 313–330, 6 pls.

3043.—Viana, M. J. Una familia de Coleópteros nueva para la República Argentina: Rhysodidae. Rev.

Soc. ent. argent., Buenos Aires **15** 1951 pp. 141–148, 4 figs.

3044.—Viaud, G. Travaux récents sur la physiologie sensorielle des insectes (H. Autrum et son école). Année biol., Paris **54** (1950) 1951 pp. 635–651, 8 figs.

Vicente *see* Gonzalez Vicente.

3045.—Viette, P. E. L. Contribution to the study of Hepialidae (25th note). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 1272–1282, 5 figs. [Lep.]

3046.—Viette, P. Les Noctuidae Noctuinae (Lep.) de la Nouvelle Calédonie et des Nouvelles Hébrides. Ann. Soc. ent. France, Paris **118** 1951 pp. 29–50, 38 figs.

3047.—Viette, P. Supplément au catalogue des Lépidoptères Hétérocères de l'Océanie française. Bull. Soc. ent. France, Paris **56** 1951 pp. 14–16.

3048.—Viette, P. Les types de Tinéides de Meyrick appartenant au Muséum de Paris (Lep.). Bull. Soc. ent. France, Paris **56** 1951 pp. 81–90.

3049.—Viette, P. Sur la classification de quelques Arctiides de la faune française (Lep.). Bull. Soc. ent. France, Paris **56** 1951 pp. 97–98.

3050.—Viette, P. Contribution à l'étude des Hepialidae (Lepid.) 22me note). Bull. mens. Soc. linn. Lyon **20** 1951 pp. 95–96, 3 figs.

3051.—Viette, P. Sur quelques noctuelles décrites par Guenée (1852–1854). Bull. mens. Soc. linn. Lyon **20** 1951 pp. 159–162. [Lep.]

3052.—Viette, P. Contribution à l'étude du genre *Incurvaria* Hw. (Lépid. Incurvariidae). Entomologiste, Paris **7** 1951 pp. 53–58, 12 figs.

3053.—Viette, P. Sur la nomenclature des types. Entomologiste, Paris **7** 1951 pp. 150–153.

3054.—Viette, P. Contribution à l'études des Hepialidae (17e note). Les genres et leur espèce type. Lambillionea, Brussels **50** (1950) 1951 pp. 73–80.

3055.—Viette, P. E. L. Contribution à l'étude des Cossidae (2e note). Les genres et leur espèce type. Lambillionea, Brussels **51** 1951 pp. 37–43.

3056.—Viette, P. Notes sur quelques Lépidoptères malgaches. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 131–138, 9 figs.

3057.—Viette, P. Contribution à l'étude des Cossidae (première note). Les Cossidae de Madagascar (Lépidoptères). Nat. malgache, Tananarive **3** 1951 pp. 133–138, 1 pl. 1 fig.

3058.—Viette, P. Sur quelques noctuelles australiennes décrites par Guenée. Rev. franç. Ent., Paris **18** 1951 pp. 101–105, 5 figs. [Lep.]

3059.—Viette, P. Les types de Tinéides de Constant. Rev. franç. Lép., Paris **12** (1950) 1951 pp. 337–341. [Lep.]

3060.—Viette, P. Sur la nomenclature des Eriocraniidae. Rev. franç. Lép., Paris **13** 1951 pp. 43–44. [Lep.]

3061.—Viette, P. Les Microlépidoptères de C. Dumont. Rev. franç. Lép., Paris **13** 1951 pp. 56–59, 4 figs.

Viette, P. *see* Herbulot & Viette.

Vilar *see* Santos Vilar.

3062.—Villeè, C. A. Studies in biochemical genetics in *Drosophila*. J. gen. Physiol., Baltimore **31** 1948 pp. 337–345. [Dipt.]

3063.—Villiers, A. Contribution à l'étude du peuplement de la Mauritanie. Notes sur divers Hémiptères Hétéroptères. Bull. Inst. franç. Afr. noire, Dakar **13** 1951 pp. 129–138, 3 figs.

3064.—Villiers, A. Notes d'Entomologie ouest-africaine II. Observations sur la répartition de quelques Hémiptères Hétéroptères et description de nouvelles espèces. Bull. Inst. franç. Afrique noire, Dakar **13** 1951 pp. 326–342, 10 figs.

3065.—Villiers, A. Les Reduviidae malgaches. VII, Acanthaspidinae. Genres et espèces nouveaux. Bull. Mus. Hist. nat., Paris (2) **22** (1950) 1951 pp. 734–738. [Hem.]

3066.—Villiers, A. Sur deux Reduviidae Saicinae du Cameroun récoltés par J. Carayon. Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 277–279. [Hem.]

3067.—Villiers, A. Types déposés au Muséum national d'Histoire naturelle par l'Institut français d'Afrique noire (3e liste). Bull. Mus. Hist. nat., Paris (2) **23** 1951 pp. 342–346.

3068.—Villiers, A. Les Reduviidae malgaches. V. Stenopoditae : gen. *Baebius* et *Thodelmus*. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 139–142. [Hem.]

3069.—Villiers, A. Nouveaux Pyrrhocoridae africains. Trab. 2a Conf. int. Afr. ocid. Bissau 1947 Lisbon **3** Sect. 2 1951 pp. 139–146, 1 col. pl. [Hem.]

3070.—Villiers, A. Note préliminaire sur le peuplement entomologique des " tan " du Sénégal. Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 165–172, 4 pls.

3071.—Villiers, A. & **Dekeyser,** P. L. Observations sur quelques Hémiptères. Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 15–21, 3 figs.

3072.—Villiers, A. & **Dekeyser,** P. L. Lépidoptères. Trab. 2a Conf. int. Afr. ocid. Bissau 1947, Lisbon **3** Sect. 2 1951 pp. 23–28.

3073.—[Vinogradskaya, O. N.] Spiracles of *Anopheles* and variations in them depending on the resistance to dryness and hygrophily of the different species. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 151–154, 2 figs. [Dipt.]

Vité, P. *see* Burschel & Vité.

3074.—Vogt, G. B. Occurrence and records of Nitidulidae [contd.]. Col. Bull., Washington, D.C. **5** 1951 pp. 4–11.

3075.—Vojtek, J. A contribution to the knowledge of Orthoptera of Silesia. [In Czech with English summary.] Přír. Sborn. Ostrav. Kraje **10** 1949 pp. 319–337, 1 fig.

3076.—Vos, A. P. C. de. Enige hydrobiologische waarnemingen op Vlieland. Bijdr. Dierk., Leiden **28** 1949 pp. 540–542, 1 fig.

3077.—Voss, E. Ueber einige Cossoninen-Gattungen des indo-australischen Faunengebietes (Coleoptera : Curculionidae). Beitr. Ent., Berlin **1** 1951 pp. 77–92, 1 fig.

3078.—Voss, E. Ueber einige Rhynchitinen der chilenischen Fauna (Coleoptera Curculionidae). Rev. chil. Ent., Santiago **1** 1951 pp. 175–185, 5 figs.

3079.—Voss, E. Einige neue Ruesslerarten aus Brasilien (Col. Curc.). Rev. Ent., Rio de Janeiro **22** 1951 pp. 363–370, 2 figs.

3080.—Voss, E. Das Gattungsynonym *Mecorhis* Billbg. im Zusammenhang mit einer Unterteilung der Gattung *Rhynchites* (Col. Curc.). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 100–102, 1 map.

3081.—Voûte, A. D. Zur Frage der Regulierung der Insekten-Populationsdichte durch räuberische Tierarten. Z. angew. Ent., Berlin **33** 1951 pp. 47–52.

3082.—Voy, A. La croissance des régénérats au cours des deux derniers âges de la phase larvaire chez le phasme (*Carausius morosus* Br.). C.R. Acad. Sci., Paris **232** 1951 pp. 894–895. [Orth.]

3083.—Voy, A. Croissance régénération au cours de cinq âges de la phase larvaire chez le phasme (*Carausius morosus* Br.). C.R. Acad. Sci., Paris **233** 1951 pp. 209–211, 1 fig. [Orth.]

3084.—Vrydagh, J. M. Faune entomologique des bois au Congo belge. Les insectes bostrychides (première note). Bull. agric. Congo belge, Brussels **42** 1951 pp. 65–90, 18 figs. [Col.]

3085.—[Vuisotzkaya, S. O.] Seasonal changes in the infestation of the grey vole with lice. [In Russian.] Parazitol. Sborn. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1950 pp. 73–79. [Anopl.]

3086.—Wade, J. S. A selected bibliography of the insects of the World associated with sugar cane, their predators and parasites. Mem. int. Soc. Sug. Cane Tech., Honolulu no. 1 1951 [2+] 113 pp.

3087.—Wadley, F. M. Notes on the form of distribution of insect and plant populations. Ann. ent. Soc. Amer., Columbus **43** (1950) 1951 pp. 581–586.

3088.—Wagner, E. On the genus *Poeciloscytus* Fieb. (Hem. Het., Miridae). Acta ent. Mus. nat. Pragae **25** 1948 no. 351, 8 pp., 2 figs.

3089.—Wagner, E. *Ectemnius nigriceps* nov. spec., a new species of Anthocoridae. Acta ent. Mus. nat. Pragae **26** 1949 no. 364, 2 pp. [Hem.]

3090.—Wagner, E. Notes on Saldidae. Acta ent. Mus. nat. Pragae **26** 1950 no. 371, 4 pp. 2 figs. [Hem.]

3091.—Wagner, E. Was ist bekannt über die Wanzen (Hemiptera–Heteroptera) Niedersachsens ? Beitr. Naturk. Niedersachs., Hanover no. 3 1948 pp. 26–32.

3092.—Wagner, E. Ist die Feuerwanze bei uns in der Ausbreitung begriffen ? Beitr. Naturk. Niedersachs., Hanover no. 8 1949 pp. 21–25, 1 map. [Hem.]

3093.—Wagner, E. Contributo alla conoscenza della fauna emitterologica italiana. Boll. Ass. romana Ent. **5** (1950) 1951 pp. 15–20, 29–31.

3094.—Wagner, E. Neue Wanzenarten aus Aegypten (Hemiptera–Heteroptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 141–144, 2 figs.

3095.—Wagner, E. Neue Miridenarten aus Nordafrika (Hemiptera–Heteroptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 145–148.

3096.—Wagner, E. Ein neues Miridengenus aus Aegypten (Hemiptera–Heteroptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 149–151, 1 fig.

3097.—Wagner, E. Einige neue Miridenarten aus Aegypten (Hemiptera–Heteroptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 153–161, 3 figs.

3098.—Wagner, E. *Aethus macrophthalmus* nov. spec., eine neue Cydnidenart aus Aegypten (Hemiptera–Heteroptera). Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 163–165, 1 fig.

3100.—Wagner, E. Zur Systematik der Gattung *Dicyphus* (Hem. Het., Miridae). Comment. biol., Helsingfors **12** 1951 no. 6 pp. 1–36, 12 figs.

3101.—Wagner, E. Ueber die Variationen bei *Eurygaster*-Arten (Hemipt. Het. Scutelleridae). Comment. biol., Helsingfors **12** 1951 no. 11 pp. 1–43, 17 figs.

3102.—Wagner, E. Zwei neue *Platycranus*-Arten aus dem Mittelmeergebiet. Ent. Ber., Amsterdam **13** 1951 pp. 363–366, 2 figs. [Hem.]

3103.—Wagner, E. Zwei neue *Capsodes*-Arten aus dem Mittelmeergebiet (Hem. Het. Miridae). Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 130–134, 3 figs.

3104.—Wagner, E. Zwei neue Pentatomiden-Arten aus der Spanischen Sahara (Hem. Het.). Eos, Madrid **27** 1951 pp. 63–67, 1 fig.

3105.—Wagner, E. *Strongylocoris atrocoeruleus* Fieb.—eine bisher übersehene deutsche Miridenart (Hem. Heteropt.). Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 241–244, 1 fig.

3106.—Wagner, E. Die Artberechtigung von *Coriomeris alpinus* Horv. (Hem. Het. Coreid.). Mitt. schweiz. ent. Ges., Berne **24** 1951 pp. 183–189, 5 figs.

3107.—Wagner, E. Zur Systematik der Gattung *Taphropeltus* Stål (Heteropt. Lygaeidae). Nachr. naturw. Mus. Aschaffenburg Heft 31 1951 pp. 45–50, 1 pl.

3108.—Wagner, E. *Halticus major* nov. spec., eine neue Miriden-Art (Hem. Het.). Nachr. naturw. Mus. Aschaffenburg Heft 33 1951 pp. 69–75, 2 pls.

3109.—Wagner, E. *Aetorrhinus brevicornis* n. sp., eine neue deutsche Miridenart (Hem. Het.). Verh. Ver. naturw. Heimatsforsch. Hamburg **29** (1947) 1948 pp. 90–93, 2 figs.

3110.—Wagner, E. Zur Systematik der Gattung *Lygus* Hhn. (Hem. Het. Miridae). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 26–40, 5 figs.

3111.—Wagner, E. *Scolopostethus pseudograndis* n. sp. (Hem. Het. Lygaeidae). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 50–52, 2 figs.

3112.—Wagner, E. *Plagiognathus* (*Poliopterus*) *litoralis* n. sp. (Hem. Heteropt. Miridae). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 53–58, 6 figs.

3113.—Wagner, E. *Tinicephalus brevipes* n. sp., eine neue deutsche Miridenart. Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 59–62, 3 figs. [Hem.]

3114.—Wagner, E. Zwei neue mediterrane *Dichrooscytus*-Arten (Hem. Het. Miridae). Z. wien. ent. Ges., Vienna **36** 1951 pp. 23–26, 2 figs.

3115.—Wagner, G. Das Wachstum der Epidermiskerne während der Larvenentwicklung von *Calliphora erythrocephala* Meigen. Z. Naturf., Tübingen **6b** 1951 pp. 86–90, 3 figs. [Dipt.]

3116.—Wagner, J. Aphaniptera. Beitr. Fauna Perus, Jena Bd. 1 1941 pp. 207–209 [all but 6 copies destroyed in the War and re-issued in 1951 as Bd. 2 pp. 201–203]. [Siphonapt.]

3117.—Wagner, W. Zikaden und Blattflöhe. Der Stand ihrer faunistischen Erforschung in Niedersachsen. Beitr. Naturk. Niedersachs., Hanover no. 4 1948 pp. 18–25. [Hem.]

3117A.—Wagner, W. Beitrag zur Phylogenie und Systematik der Cicadelliden (Jassidae) Nord– und Mitteleuropas. Comment. biol., Helsingfors **12** 1951 no. 2 pp. 1–44, 27 figs. [Hem.]

3118.—Wagner, W. Verzeichnis der bisher in Unterfranken gefundenen Zikaden (Homoptera Auchenorrhyncha). Nachr. naturw. Mus. Aschaffenburg Heft 33 1951 pp. 1–54.

3119.—Wagner, W. *Euscelis singeri* n. sp. Beschreibung der neuen Art. Nachr. naturw. Mus. Aschaffenburg Heft 33 1951 pp. 55–60, 1 pl. [Hem.]

3120.—Wagner, W. Beitrag zur Systematik der deutschen Aphalarinae (Homopt. Psyll.). Verh. Ver. naturw. Heimatsforsch. Hamburg **29** (1947) 1948 pp. 55–71, 46 figs.

3121.—Wagner, W. Neue deutsche Homopteren und Bemerkungen über schon bekannte Arten. Verh. Ver. naturw. Heimatsforsch. Hamburg **29** (1947) 1948 pp. 72–89, 72 figs.

3122.—Wagner, W. Die deutschen Arten der Gattung *Oncopsis* Burmeister (Hemipt. Homopt.). Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 1–25, 7 figs.

3123.—Wahlgren, E. Cecidiologiska anteckningar. VI. Ent. Tidskr., Stockholm **72** 1951 pp. 84–156. [Ins. pp. 117–147.]

3124.—Wahlgren, E. Anteckningar om huvudsakligen skånska bladlöss (Hom. Aphid.). Opusc. ent., Lund **16** 1951 pp. 65–73.

3125.—Wahlgren, E. Bladminerande tenthredinidlarver II (Hym. Phyt.). Opusc. ent., Lund **16** 1951 pp. 74–76.

3126.—Walker, E. M. The Odonata of the northern insect survey. Canad. Ent., Ottawa **83** 1951 pp. 269–279.

3127.—Walker, E. M. *Sympetrum semicinctum* (Say) and its nearest allies (Odonata). Ent. News, Lancaster, Pa. **62** 1951 pp. 153–163, 1 pl. 3 figs.

3128.—Walkmeister, A. Die Odonaten des Giessenparksees in Bad Ragaz. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 116–119.

3129.—Wallace, B. Genetic changes within populations after x-irradiation. Genetics, Lancaster, Pa. **36** 1951 pp. 612–628, 5 figs. [Dipt.]

3130.—Wallace, B. & **King,** J. C. Genetic changes in populations under irradiation. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 209–222, 3 figs.

3131.—Walley, G. S. Notes on *Phanerotoma tibialis* (Hald.) and *P. fasciata* Prov., with descriptions of two new species (Hymenoptera: Braconidae). Canad. Ent., Ottawa **83** 1951 pp. 301–308.

3132.—Waloff, N. Observations on the Moroccan locust (*Dociostaurus maroccanus* Thunberg) in Cyprus, 1950. Observations on locust hoppers. Anti-Locust Bull., London no. 10 1951 pp. 9–36, 1 fig. [Orth.]

3133.—Waloff, Z. & **Rainey,** R. C. Field studies on factors affecting the displacements of desert locust swarms in eastern Africa. Anti-Locust Bull., London no. 9 1951 pp. 1–50, 9 figs. [Orth.]

Waloff, Z. *see* Rainey & Waloff.

3134.—Walrecht, B. J. J. R. Het bouwinstinct der sociale wespen. Levende Natuur, Amsterdam **54** 1951 pp. 66–70, 5 figs., 196–200, 1 fig., 235–239, 4 figs. [Hym.]

3135.—Walrecht, B. J. J. Enkele opmerkingen naar aanleiding van enige hoornaarnesten. Natura, Amsterdam **48** 1951 pp. 98–101, 5 figs. [Hym.]

3136.—Walshe, B. M. Autoecology of *Chironomus plumosus*. Année biol., Paris **55** 1951 pp. 555–559. [Dipt.]

3137.—Walshe, B. M. The oxygen requirements and thermal resistance of Chironomid larvae from flowing and from still waters. J. exp. Biol., London **25** 1948 pp. 35–44, 3 figs. [Dipt.]

3138.—Walshe, B. M. The function of haemoglobin in relation to filter feeding in leaf-mining Chironomid larvae. J. exp. Biol., London **28** 1951 pp. 57–61, 1 fig. [Dipt.]

3139.—Walshe, B. M. The feeding habits of certain Chironomid larvae (subfamily Tendipedinae). Proc. zool. Soc. London **121** 1951 pp. 63–79, 6 figs. [Dipt.]

Walters, F. *see* King & Walters.

3140.—Walz, A. J. Rearing the greenbottle-fly on dog biscuits. Pan-Pacif. Ent., San Francisco **27** 1951 pp. 191–192. [Dipt.]

Wang, L. Y. *see* Chu & Wang.

3141.—Wanson, M. & **Holemans,** K. L'habitat des stades préimaginaux de *Simulium neavei* et de *Simulium renauxi*. Ann. Parasit. hum. comp., Paris **26** 1951 pp. 93–98. [Dipt.]

3142.—Ward, R. A. Description of a new species of Anoplura (*Lemurphthirus verruculosus*) from a Madagascar lemur. Ent. News, Philadelphia, Pa. **62** 1951 pp. 190–192, 3 figs.

3143.—Warnecke, G. Wie stark kann die Einschränkung eines Lebensraumes für eine bestimmte Schmetterlingsart ohne Gefährdung ihres Bestandes werden ? Ent. Z., Frankfurt a. M. **60** 1950 pp. 9–13, 18–21. [Lep.]

3144.—Warnecke, G. Der Rassenkreis und das entwicklungsgeschichtliche Alter der *Agrotis* (*Euxoa*) *lidia* Cr. (Lep. Noct.). Ent. Z., Frankfurt a. M. **60** 1951 pp. 153–157.

3145.—Warnecke, G. Sommerfugle fra Island. Med Beskivelse af to nye Lokalformer. Flora og Fauna, Copenhagen **57** 1951 pp. 41–44. [Lep.]

3146.—Warnecke, G. Einige Bemerkungen zur Frage der Variabilität bei den Schmetterlingen der friesischen Inseln. Verh. Ver. naturw. Heimatsforsch. Hamburg **29** (1947) 1948 pp. 48–54. [Lep.]

3147.—Warnecke, G. Zur Frage eines " atlantischen " Klimakeils in Schleswig-Holstein und seines Einflusses auf die Tierwelt. Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. 90–98, 9 maps.

3148.—Warnecke, G. Wanderfalter 1946 und 1947 in Deutschland. Z. Lepid., Krefeld **1** 1951 pp. 85–94, 165–173.

3149.—Warren, B. C. S. Speciation in the genus *Colias* : with special reference to *C. hyale* and *C. australis*. Lambillionea, Brussels **50** (1950) 1951 pp. 90–98, 2 pls. [Lep.]

3150.—Warters, M. & **Griffen,** A.B. The telemeres of *Drosophila*. J. Hered., Washington **41** 1950 pp. 183–190, 3 figs. [Dipt.]

3151.—Watanabe, C. Descriptions of new or little-known species of Braconidae, with notes on synonymy (Hymenoptera). Insecta matsum., Sapporo **17** 1951 pp. 93–101, 2 figs.

3152.—Watanabe, C. Supplementary notes on the genus *Streblocera* Westwood (II) (Hymenoptera : Braconidae). Insecta matsum., Sapporo **17** 1951 p. 102.

3153.—Watanabe, C. On five Scelionid egg-parasites of some Pentatomid and Coreid bugs from Shikoku, Japan (Hymenoptera : Proctotrupoidea). Trans. Shikoku ent. Soc. **2** 1951 pp. 17–26, 3 figs.

3154.—Watanabe, C. & **Sakagami,** S. Discovery of a new species of the genus *Parambynotus* Cameron from Japan (Hymenoptera : Cynipoidea). Insecta matsum., Sapporo **17** 1951 pp. 129–131, 1 fig.

3155.—Watanabe, M. I. & **Williams,** C. M. Mitochondria in the flight muscles of insects. I. Chemical composition and enzymatic content. J. gen. Physiol., Baltimore **34** 1951 pp. 675–689, 5 figs.

3156.—Waterhouse, D. F. The occurrence of barium and strontium in insects. Aust. J. sci. Res., Melbourne (B) **4** 1951 pp. 144–162, 2 pls. 3 figs.

3157.—Waterhouse, F. L. Body-temperature of small insect larvae. Nature, London **168** 1951 p. 340, 1 graph.

3158.—Waterston, A. R. Observations on the Moroccan locust (*Dociostaurus maroccanus* Thunberg) in Cyprus, 1950. Observations on adult locusts. Anti-Locust Bull., London no. 10 1951 pp. 36–52. [Orth.]

3159.—Watson, A. G. A new species of *Phlebotomus* (Diptera, Psychodidae) from Uganda. Ann. trop. Med. Paras., Liverpool **45** 1951 pp. 78–79, 3 figs.

3160.—Way, M. J., **Smith,** P. M. & **Hopkins,** B. The selection and rearing of leaf-eating insects for use as test subjects in the study of insecticides. Bull. ent. Res., London **42** 1951 pp. 331–354, 1 pl. 1 fig.

3161.—Weathersbee, A. A., **Arnold,** jr., F. T. & **Askey,** jr., M. M. Additional mosquito distribution records for South Carolina. J. Tenn. Acad. Sci., Nashville **26** 1951 pp. 79–84. [Dipt.]

3162.—Webb, F. E. & **Forbes,** R. S. Notes on the biology of *Pleroneura borealis* Felt (Xyelidae : Hymenoptera). Canad. Ent., Ottawa **83** 1951 pp. 181–183, 1 fig.

3163.—Weber, E. Neue Morphiden und neues über Morphiden. Eos, Madrid **27** 1951 pp. 69–78, 6 figs. [Lep.]

3164.—Weber, N. A. The functional significance of dimorphism in the African ant, *Oecophylla*. Ecology, Lancaster, Pa. **30** 1949 pp. 397–400. [Hym.]

3165.—Webley, D. P. Blood-cell counts in the African migratory locust (*Locusta migratoria migratorioides* Reiche & Fairmaire). Proc. R. ent. Soc. London (A) **26** 1951 pp. 25–37, 6 figs.

Wedel, M. *see* Pavan, Cordeiro & others.

Weesner, F. M. *see* Light & Weesner.

3166.—Węglarska, B. Fertilization and early stages of development in *Agelastica ulmi* L. (Coleoptera, Chrysomelidae). Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 277–302, 19 figs. [In Czech.] Abstract in English in C.R. Sci. math. nat. Acad. polon. **1950** 1951 no. 8–10 p. 7.

Wehrle, W. P. *see* Hottes & Wehrle.

3167.—Wehrli, E. Une nouvelle classification du genre *Gnophos* Tr. Lambillionea, Brussels **51** 1951 pp. 6–11, 22–30, 34–37. [Lep.]

Weiant, E. A. *see* Roeder & Weiant.

3168.—Weidmann, U. Ueber den systematischen Wert von Balzhandlungen bei *Drosophila*. Rev. suisse Zool., Geneva **58** 1951 pp. 502–511, 4 figs. [Dipt.]

3169.—Weidner, E. Cecidiologische Beobachtungen in Franken. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 1057–1068, 3 figs. [Dipt.]

3170.—Weidner, E. & H. Die Zoocecidien Unterfrankens. Nachr. naturw. Mus. Aschaffenburg Heft 32 1951 pp. 9–102, 3 pls.

3171.—Weidner, H. Bilder aus dem Insektenleben Nordgriechenlands. Ent. Z., Frankfurt a. M. **59** 1950 pp. 157–160, 162–176, 180–183, 190–192.

3172.—Weidner, H. Oekologische Voraussetzungen für eine intraspezifische Evolution bei Heuschrecken. Zool. Anz., Leipzig **145** 1950 Ergänzungsband (Klatt Festschr.) pp. 1069–1078, 3 figs. [Orth.]

3173.—Weib, A. S. Untersuchungen über das Wechselsingen (Anaphonie) und über das angeborene Lautschema einiger Feldheuschrecken. Z. Tierpsychol., Berlin **8** 1951 pp. 1–41, 5 figs. [Orth.]

3174.—Weill, J. Un nouveau *Chrysochloa* de France (Col. Chrysomelidae). Rev. franç. Ent., Paris **18** 1951 pp. 154–156, 1 fig.

3175.—Weinert, R. Interessante Lebensgewohnheiten der Raupen von *Agrotis praecox, cursoria, vestigialis* und deren Futterpflanzen. Ent. Z., Frankfurt a. M. **60** 1950 pp. 113–114. [Lep.]

3176.—Weiser, J. Nosematosis of *Otiorrhynchus ligustici*. I.—Description of the parasite. [With summary in Czech.] Acta Soc. zool. bohemoslov., Prague **15** 1951 pp. 209–218, 5 figs. [Col.]

3177.—Weiser, J. Contribution to the knowledge of fungi parasitising in insects. [In Czech with English summary.] Ent. Listy, Brno **14** 1951 pp. 130–135, 5 figs. [Lep.]

Weis-Fogh, T. *see* Krogh & Weis-Fogh.

3178.—Weld, L. H. New Eucoilinae (Hymenoptera, Cynipoidea). Proc. ent. Soc. Washington **53** 1951 pp. 223–226, 2 figs.

3179.—Weld, L. H. A new species of *Trybliographa* (Hymenoptera : Cynipidae). Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 331–332.

3180.—Wellington, W. G., **Sullivan,** C. R. & **Green,** G. W. Polarized light and body temperature level as orientation factors in the light reactions of some Hymenopterous and Lepidopterous larvae. Canad. J. Zool., Ottawa **29** 1951 pp. 339–351.

3181.—Wendt, A. Ueber *Cimex pipistrelli* Jenyns und seine Formen (Hex., Rhynchota). Z. Parasitenk., Berlin **12** 1941 pp. 259–272, 13 figs.

3182.—Werckmeister, P. Die blaue Holzbiene als Bestäuber. Natur u. Volk, Frankfurt a. M. **81** 1951 pp. 116–120, 3 figs. [Hym.]

3183.—Werneck, F. L. Notas sôbre malófagos (Gyropidae). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 303–313, 16 figs.

3184.—Werner, F. G. Additions to the Nearctic Meloidae (Coleop.). Psyche, Cambridge, Mass. **57** (1950) 1951 pp. 131–136, 5 figs.

3185.—West, L. S. The housefly. Its natural history, medical importance, and control. Ithaca, N.Y., Comstock Publ. Co. & London, Constable & Co. Ltd. 1951 xi and [3+] 584 pp. 176 figs. 1 frontispiece. [Dipt.]

3186.—Westfall, jr., M. J. Notes on *Tetragoneura sepia* Gloyd, with descriptions of the female and nymph. Florida Ent., Gainesville **34** 1951 pp. 9–14, 1 fig. [Odon.]

Westhoff, V. *see* Mörzer Bruijns & Westhoff.

3187.—Weyer, F. Neuere Beobachtungen über die Winterruhe bei *Anopheles maculipennis* Mg. Z. Parasitenk., Berlin **12** 1941 pp. 157–164. [Dipt.]

3188.—Weyer, F. Neuere Beobachtungen über *Anopheles* in Deutschland (mit einer Beitrag zur Nomenklaturfrage bei *A. maculipennis*). Z. Tropenmed. Parasit., Stuttgart **2** 1951 pp. 367–401.

3189.—Wheeler, G. C. & J. The ant larvae of the sub-family Dolichoderinae (Hymenoptera, Formicidae). Proc. ent. Soc. Washington **53** 1951 pp. 169–210, 4 pls. 1 fig.

3190.—Wheeler, M. R. *Dettopsomyia* and *Ptilomyia* : two genera new to the United States (Diptera : Drosophilidae ; Ephydridae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 92–94.

Wheeler, M. R. *see* Frota-Pessoa & Wheeler.

White, J. D. *see* Dolley & White.

3191.—White, J. H. Observations on the life history and biology of *Tipula lateralis* Meig. Ann. appl. Biol., London **38** 1951 pp. 847–858, 7 figs. [Dipt.]

3192.—White, M. J. D. Cytogenetics of Orthopteroid insects. Advances Genet., New York **4** 1951 pp. 268–330, 6 figs.

3193.—White, M. J. D. Structural heterozygosity in natural populations of the grasshopper *Trimerotropis*

sparsa. Evolution, Lancaster, Pa. **5** 1951 pp. 376–394, 7 figs. [Orth.]

3194.—White, M. J. D. A cytological survey of wild populations of *Trimerotropis* and *Circotettix* (Orthoptera, Acrididae). II. Racial differentiation in *T. sparsa*. Genetics, New York **36** 1951 pp. 31–53, 6 figs.

3195.—White, M. J. D. & **Nickerson,** N. H. Structural heterozygosity in a very rare species of grasshopper. Amer. Nat., Lancaster, Pa. **85** 1951 pp. 239–246, 4 figs. [Orth.]

3196.—White, R. A. S. The distribution of the Culicid tribe Anophelinae around the Caribbean Sea. Caribbean med. J., Port-of-Spain **12** 1950 pp. 67–71. [Dipt.]

3197.—Whitehead, H. Notes on the growth and development of a caddis larva, *Limnephilus vittatus* (Fab.). Naturalist, London **1951** 1951 no. 836 pp. 13–15, 1 fig. [Trichopt.]

3198.—Whiting, P. W. Multiple complementary alleles in *Habrobracon* and *Mormoniella*. J. Genet., London **50** 1951 pp. 206–214. [Hym.]

Whitman, L. *see* Lane & Whitman.

3199.—Whittinghill, M. Some effects of gamma rays on recombination and on crossing over in *Drosophila melanogaster*. Genetics, New York **36** 1951 pp. 332–355, 2 figs. [Dipt.]

3200.—Wiedner, H. Wiederauffinden einer seit mehr als hundert Jahren in der Lüneburger Heide verschollenen Heuschrecke. Beitr. Naturk. Niedersachs., Hanover **4** 1950 pp. 21–23. [Orth.]

3201.—Wigglesworth, V. B. Source of moulting hormone in *Rhodnius*. Nature, London **168** 1951 p. 558. [Hem.]

3202.—Wijesundara, D. P. Notes on species of the subgenus *Aëdes* Meigen (sens. str.) in Ceylon, with descriptions of three new species. Ceylon J. Sci., Colombo (B. Zool.) **24** 1951 pp. 173–179, 2 pls. [Dipt.]

3203.—Wilcox, J. A. A new species and new genus of Galerucinae (Chrysomelidae : Coleoptera). Ohio J. Sci., Columbus **51** 1951 pp. 90–94, 1 pl.

3204.—Wilde, W. H. A. A bi-valve type of insect feeding cage. Canad. Ent., Ottawa **83** 1951 pp. 206–208, 3 figs.

3205.—Wilkins, O. P. & **Breland,** O. P. The larval stages and the biology of the mosquito, *Orthopodomyia alba* Baker (Diptera : Culicidae). J. New York ent. Soc. **59** 1951 pp. 225–235, 5 pls.

3206.—Wilkins, O. P. & **Breland,** O. P. Notes on the giant walking stick, *Megaphasma denticrus* (Stål) (Orthoptera : Phasmatidae). Texas J. Sci., Houston **3** 1951 pp. 305–310, 2 figs.

3207.—Willemse, C. Description of a new genus and species of Acrididae, subfam. Acridinae, from India. Ent. Ber., Amsterdam **13** 1951 pp. 279–280. [Orth.]

3208.—Willemse, C. Synopsis of the Acridoidea of the Indo-Malayan and adjacent regions (Insecta, Orthoptera). Publ. natuurh. Genootsch. Limburg **4** 1951 pp. 41–114, 64 figs.

3209.—Williams, C. B. Diversity as a measurable character of an animal or plant population. Année biol., Paris **55** 1951 pp. 129–141, 5 figs.

3210.—Williams, C. B. Comparing the efficiency of insect traps. Bull. ent. Res., London **42** 1951 pp. 513–517.

3211.—Williams, C. B. Seasonal changes in flight direction of migrant butterflies in the British Isles. J. Anim. Ecol., London **20** 1951 pp. 180–190, 9 figs. [Lep.]

3212.—Williams, C. B. The migration of Libytheine butterflies in Africa. Nigerian Field, Eversley, Hants **16** 1951 pp. 152–159, 3 figs. [Lep.]

3213.—Williams, C. B. Changes in insect populations in the field in relation to preceding weather conditions. Proc. roy. Soc., London **138** 1951 pp. 130–156, 9 figs.

3214.—Williams, C. M. Extrinsic control of morphogenesis as illustrated in the metamorphosis of the insect. Growth, Philadelphia **12** 1948 Suppl. pp. 61–76.

3215.—Williams, C. M. The metamorphosis of insects. Scient. Amer., New York **182** 1950 no. 4 pp. 24–28, figs.

Williams, C. M. *see* Sanborn & Williams ; Watanabe & Williams.

3216.—Williams, C. M. W. Biochemical mechanisms in insect growth and metamorphosis. Fed. Proc., Baltimore **10** 1951 pp. 546–552, 2 figs.

3217.—Williams, D. D. Temperature effect on the prevalence of male and female *Drosophila melanogaster* Meigen. J. New York ent. Soc. **59** 1951 pp. 213–216, 2 figs.

3218.—Williams, J. R. The bionomics and morphology of *Brenthia leptocosma* Meyrick (Lep., Glyphipterygidae). Bull. ent. Res., London **41** 1951 pp. 629–635, 19 figs.

3219.—Williams, J. R. The control of the black sage in Mauritius by *Schematiza cordiae* Barb. (Col. Galerucid.). Bull. ent. Res., London **42** 1951 pp. 455–463, 2 pls.

3220.—Williams, J. R. The factors which promote and influence the oviposition of *Nemeritis canescens* Grav. (Ichneumonidae, Ophioninae). Proc. R. ent. Soc. London (A) **26** 1951 pp. 49–58, 2 figs.

3221.—Williams, L. A. & **Hoff,** C. C. Fleas from the upper Sonoran zone near Albuquerque, N. Mex. Proc. U.S. nat. Mus., Washington, D.C. **101** 1951 no. 3278 pp. 305–313, 1 fig.

3222.—Williams, R. W. Observations on the bionomics of *Culicoides tristriatulus* Hoffman with notes on *C. alaskensis* Wirth and other species at Valdez, Alaska, Summer 1949 (Diptera, Heleidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 173–183.

3223.—Williams, R. W. The immature stages of *Culicoides tristriatulus* Hoffman (Diptera, Heleidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 430–440, 2 pls.

3224.—Willink, A. Una especie nueva argentina de *Trimeria* (Hym., Masaridae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 77–82, 6 figs.

Willis, E. R. *see* Roth & Willis.

3225.—Wilson, C. E. Butterflies of the northern and central Sudan. Sudan Notes and Rec., Khartoum **30** 1949 pp. 222–244, 9 pls. [Lep.]

3226.—Wilson, E. O. Variation and adaptation in the imported fire ant. Evolution, Lancaster, Pa. **5** 1951 pp. 68–79, 5 figs. [Hym.]

3227.—Wilson, E. O. A new *Leptothorax* from Alabama (Hymenoptera : Formicidae). Psyche, Cambridge, Mass. **57** (1950) 1951 pp. 128–130.

3228.—Wiltshire, E. P. Further new records of Lepidoptera from Cyprus, Iraq and Persia (Iran). Ent. Rec., London **63** 1951 sep. pp. 1–6.

3229.—Wiltshire, E. P. A year on a Tigris island. J. Bombay nat. Hist. Soc. **49** 1951 pp. 637–660, 3 pls. 1 map 1 fig. [Lep.]

3230.—Wing, M. W. A new genus and species of myrmecophilous Diapriidae with taxonomic and biological notes on related forms (Hymenoptera). Trans. R. ent. Soc. London **102** 1951 pp. 195–210, 8 figs.

3231.—Winkler, J. Some notices on Middle-European Cleridae (Col., Malacodermata). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 157–167, 6 figs.

3232.—Winkler, J. & **Havelka,** J. La variabilité et la répartition zoogéographique de l'espèce *Homalisus fontisbellaquei* Fourcr. mâle en Tchécoslovaquie. Bull. Soc. ent. Mulhouse **1951** 1951 pp. 85–92, 3 pls. [Col.]

Winkler, J. *see* Havelka & Winkler.

3233.—Winning, E. von. Bewährte Methoden der Aufzucht von Kartoffelkäfern im Laboratorium. NachrBl. dtsch. PflSchDienst N.F. **5** 1951 pp. 128–130, 2 figs. [Col.]

3234.—Wintrebert, P. La loi de récapitulation génétique et la recherche du Grassé, dans l'ontogénèse, par la voie des mutations provoquées. C.R. Acad. Sci., Paris **232** 1951 pp. 1885–1888.

3235.—Wirth, W. W. The genus *Culicoides* in Alaska (Diptera, Heleidae). Ann. ent. Soc. Amer., Columbus **44** 1951 pp. 75–86, 2 pls.

3236.—Wirth, W. W. A new mountain midge from California (Diptera : Deuterophlebiidae). Pan-Pacif. Ent., San Francisco **27** 1951 pp. 49–57, 2 figs.

3237.—Wirth, W. W. The genus *Probezzia* in North America (Diptera, Heleidae). Proc. ent. Soc. Washington **53** 1951 pp. 25–34, 1 fig.

3238.—Wirth, W. W. A new biting midge of the genus *Leptoconops* from Florida, with new records of other American species (Diptera, Heleidae). Proc. ent. Soc. Washington **53** 1951 pp. 281–284, 7 figs.

3239.—Wirth. W. W. New species and records of Virginia Heleidae (Diptera). Proc. ent. Soc. Washington **53** 1951 pp. 313–326, 11 figs.

Wirth, W. W. *see* Quate & Wirth.

3240.—Wiseman, J. S. Studies on the Siphonaptera (fleas) of Wyoming. [Abstract of thesis.] Univ. Wyo. Publ., Laramie **16** 1951 pp. 273–274.

3241.—Wittmer, W. Notas sinonímicas y sistemáticas sobre Malacodermata (2ª nota). An. Soc. cient. argent., Buenos Aires **151** 1951 pp. 276–278. [Col.]

3242.—Wittmer, W. Nuevos Cantharidae de la Cordillera de los Andes (Coleoptera). Rev. chil. Ent., Santiago **1** 1951 pp. 187–188, 2 figs.

3243.—Wittmer, W. Sur le genre *Prosthaptus* Gorh. (Col. Cantharidae). Rev. Zool. Bot. afr., Brussels **44** 1951 pp. 215–218, 3 figs.

3244.—Wittstadt, H. Die Zucht von *Lemonia dumi* L. Ent. Z., Frankfurt a. M. **60** 1951 pp. 145–147. [Lep.]

Wittstadt, H. *see* Meier & Wittstadt.

3245.—Wohlschlag, D. E. Vegetation and invertebrate life in a marl lake. Invest. Indiana Lakes and Streams, Indianapolis **3** 1950 pp. 231–372, 1 map 3 figs.

Wojtusiak, H. & R. J. *see* Kałkowski, Rumek, Franckiewicz & Wojtusiak.

3246.—Wojtusiak, R. J., **Kornaś,** A. & J. & **Franckiewicz,** H. Investigations on the bottom fauna and flora in the Gulf of Gdańsk made by using a diving helmet. Part III. Docum. physiogr. Polon., Cracow no. 26 1950, 20 pp. 8 figs.

3247.—Wojtusiakowa, H. The temperature preferendum of winter insects of the genus *Boreus* (Panorpatae) and *Chionea* (Diptera). Bull. int. Acad. Cracovie **1950** BII 1951 Cl. math. nat. pp. 123–143, 4 figs. [In Czech.] Abstract in English in C.R. Sci. math. nat. Acad. polon. **1950** 1950 no. 4–5 pp. 18–19.

3248.—Woke, P. A. Notes on a migratory flight of *Urania fulgens* Walker (Uraniidae) on the Isthmus of Panama, Central America. Proc. R. ent. Soc. London (A) **26** 1951 pp. 38–39. [Lep.]

3249.—Wolf, B. E. Ueber die Enstehung von accessorischen Kernen im Ei von *Phryne fenestralis* (Diptera). Moderne Biol., Festschr. 60. Geburtst. Nachtsheim, Berlin 1950 pp. 251–274, 11 figs.

3250.—Wolf, H. Beiträge zur Hymenopterenfauna des oberen Lahn-Dill-Sieg-Gebietes (II). Ent. Z., Frankfurt a. M. **59** 1950 pp. 183–184, 187–190.

3251.—Wolf, H. Ueber die Wirte der Gruppe der *Nomada flavopicta* K. (Hym. Apidae). Ent. Z., Frankfurt a. M. **60** 1950 pp. 105–107.

3252.—Wolf, H. Die parasitische Lebensweise der Grabwespengattung *Nysson* Latr. (Hym. Crabronidae). Nachr. naturw. Mus. Aschaffenburg Heft 33 1951 pp. 77–80.

3253.—Wolff, T. Pollination and fertilization of the fly *Ophrys, O. insectifera* L. in Allindelille Fredskov, Denmark. Oikos, Copenhagen **2** 1950 pp. 20–59, 9 figs. [Hym.]

3254.—Wolfinsohn, M. The influence of the water content of the medium on the accumulation of larvae and pupae of the house-fly. Bull. Res. Counc. Israel, Jerusalem **1** 1951 pp. 166–168. [Dipt.]

3255.—Wolfram, R. Die Ommochrom-Menge in den Malpighischen Gefässen bestimmende Allele der Mehlmotte *Ephestia kühniella.* Z. Naturf., Wiesbaden **3b** 1948 pp. 291–293, 2 figs. [Lep.]

3256.—Wolfs, J. Un Culicide nouveau de la région éthiopienne :

Taeniorhynchus (*Coquillettidia*) *karandalaensis* sp. n. Rev. Zool. Bot. afr., Brussels **45** 1951 pp. 12–14, 6 figs. [Dipt.]

3257.—Wolfsberger, J. Die zweite Generation von *Pieris bryoniae* O. ssp. *flavescens* Wag. in den bayerischen und angrenzenden österreichischen Kalkalpen. Ent. NachrBl. öst. schweiz. Ent., Vienna **3** 1951 pp. 137–139. [Lep.]

3258.—Wolfsberger, J. Ein Beitrag zur Biologie von *Biston* (*Poecilopsis*) *isabellae* Harr. und ihre Verbreitung in den Alpen. Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 210–216. [Lep.]

3259.—Wolfsberger, J. Beobachtungen über das Vorkommen der zweiten Generation von *Colias phicomone* Esp. in den bayerischen Alpen. Mitt. münchn. ent. Ges., Münich **41** 1951 pp. 245–247. [Lep.]

Wolvekamp, H. P. *see* Ruiter, Wolvekamp & Tooren.

3260.—Woo, Wei-chün, **Kuan,** Chih-hu & **Luh,** Chin-jên. The morphology of the head of the Lepidopterous larvae as discussed with the silkworm (*Bombyx mori* L.). [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1950 pp. 152–163, 4 figs. [Lep.]

3261.—Woo, Wei-chün & **Yang,** Chi-kun. Keys to the Chinese genera of Noctuidae. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 348–377, 49 figs. [Lep.]

3262.—Wood, G. W. An annotated list of Lepidopterous larvae from commercial blueberry fields, Charlotte County, N.B. Canad. Ent., Ottawa **83** 1951 pp. 241–244.

3263.—Wood, S. L. Two new species and a new genus of Scolytidae (Coleoptera) from Utah. J. Kans. ent. Soc., Manhattan **24** 1951 pp. 31–32.

3264.—Woodhouse, L. G. O. The butterfly fauna of Ceylon. 2nd (abridged) edition. Colombo, Ceylon Govt. Press 1950 xvi and 131 pp. 48 pls. (36 col.) 8 figs. 1 col. frontisp.

3265.—Woodroffe, G. E. A life-history study of the brown house-moth, *Hofmannophila pseudospretella* (Staint.) (Lep., Oecophoridae). Bull. ent. Res., London **41** 1951 pp. 529–553, 3 pls. 5 figs.

3266.—Woodroffe, G. E. A life-history study of *Endrosis lactella* (Schiff.) (Lep. Oecophoridae). Bull. ent. Res., London **41** 1951 pp. 749–760, 3 pls. 2 figs.

3267.—Woodroffe, G. E. & **Southgate** B. J. Birds' nests as a source of domestic pests. Proc. zool. Soc. London **121** 1951 pp. 55–62, 2 pls.

3268.—Woodward, T. E. New records of Miridae (Heteroptera) from New Zealand, with descriptions of a new genus and four new species. Rec. Auckland Inst. Mus. **4** 1950 pp. 9–23, 15 figs.

3269.—Woodward, T. E. A new species of *Cermatulus* Dallas from the Three Kings Islands, New Zealand (Heteroptera : Pentatomidae). Rec. Auckland Inst. Mus. **4** 1950 pp. 24–30.

3270.—Woodward, T. E. The occurrence of *Acantholybas brunneus* Breddin in New Zealand (Heteroptera : Coreidae). Trans. roy. Soc. N.Z., Dunedin **79** 1951 pp. 206–209, 3 figs.

3271.—Woolley, T. A. The circulatory system of the box elder bug *Leptocoris trivittatus* (Say). Amer. Midl. Nat., Notre Dame **46** 1951 pp. 634–639, 7 figs. [Hem.]

3272.—Worms, C. G. M. de. A collecting trip to Abisko, Swedish Lapland, in June, 1950. Entomologist, London **84** 1951 pp. 121–127, 2 pls.

3273.—Wörndle, A. Die Käfer von Nordtirol. Faunistisches Verzeichnis der aus dem Gebiete bisher bekannt gewordenen Koleopteren. Schlern-Schriften Innsbruck no. 64 1950 388 pp. 2 pls. 1 map.

3274.—Worthington-Stuart, B. Collecting and breeding butterflies and moths. London and New York, F. Warne & Co. Ltd. 1951, 190 pp. frontisp. 17 figs. [Lep.]

3275.—Wörz, A. Die Lepidopterenfauna von Württemberg. II. Microlepidopteren. Kleinschmetterlinge. Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **106** (1950) 1951 pp. 125–144.

3276.—Wray, D. L. Insects of North Carolina. Second supplement. Raleigh, N.C., Dep. Agric. 1950 59 pp. 1 map. [Insects pp. 1–39.]

3277.—Wróblewski, A. [Heteroptera of Wolina, Western Maritime Province of Poland.] [In Polish.] Spraw. Roznansk. Tow. Przyj. Nauk **1949** 1950 pp. 146–148.

Wu I. *see* Tseng Sheng & Wu I.

Wulfert, K. *see* Pax & Wulfert.

Wyckoff, R. W. G. *see* Smith & Wyckoff.

3278.—Wygodzinsky, P. Notas sobre Cimicidae de la República Argentina (Hemiptera). An. Inst. Med. reg., Tucumán **3** 1951 pp. 185–197, 50 figs.

3279.—Wygodzinsky, P. Sobre *Gigantodax horcotiani* Wygodzinsky, 1949 y *Gigantodax wittmeri* sp. n. (Diptera, Simuliidae). An. Inst. Med. reg., Tucumán **3** 1951 pp. 199–206, 44 figs.

3280.—Wygodzinsky, P. Sobre *Simulium jujuyense* Paterson y Shannon, 1927, *Simulium exiguum* Roubaud, 1906, y *Simulium opalinifrons* (Enderlein, 1934). An. Inst. Med. reg., Tucumán **3** 1951 pp. 207–220, 80 figs.

3281.—Wygodzinsky, P. Sobre *Simulium ignescens* Roubaud, 1906, *Simulium romañai* sp. n. y *Simulium adolfolutzi* sp. n. (Diptera, Simuliidae). An. Inst. Med. reg., Tucumán **3** 1951 pp. 221–236, 103 figs.

3282.—Wygodzinsky, P. On *Bargylia* Stål, 1865, *Pseudobargylia*, gen. nov. and *Leistarches serripes* Dohrn, 1860 (Emesinae, Reduviidae : Hemiptera). Ann. Mag. nat. Hist., London (12) **4** 1951 pp. 609–617, 17 figs.

3283.—Wygodzinsky, P. Contribuição ao conhecimento do gênero *Heniartes* Spinola, 1837 (Apiomerinae, Reduviidae, Hemiptera). Arq. Mus. nac., Rio de Janeiro **41** 1948 pp. 9–64, 216 figs. (1 col.)

3284.—Wygodzinsky, P. Sôbre algumas espécies do gênero *Ghilianella* Spinola, 1850 (Emesinae, Reduviidae, Hemiptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 223–226, 18 figs.

3285.—Wygodzinsky, P. Descripción de géneros y especies nuevos de la familia Cryptostemmatidae (Hemiptera). Rev. brasil. Biol., Rio de Janeiro **11** 1951 pp. 259–270, 66 figs.

3286.—Wygodzinsky, P. Contribución al conocimiento del género *Metapterus* Costa, 1860, de las Américas y de Juan Fernández (Hemiptera Reduviidae). Rev. chil. Ent., Santiago **1** 1951 pp. 113–128, 43 figs.

3287.—Wygodzinsky, P. Thysanura from Juan Fernandez Island (Apterygota). Rev. chil. Ent., Santiago **1** 1951 pp. 199–204, 22 figs.

3288.—Wygodzinsky, P. Notas sobre Ectrichodiinae neotropicales (Hemipt. Reduviidae). Rev. Soc. ent. argent., Buenos Aires **15** 1951 pp. 35–52, 23 figs.

3289.—Wygodzinsky, P. The 3rd Danish Expedition to Central Asia. Zoological results. 2. Thysanura (Insecta) aus Afghanistan. Vidensk. Medd. Dansk naturh. Foren., Copenhagen **112** 1950 pp. 139–155, 61 figs.

Wygodzinsky, P. *see* Abalos & Wygodzinsky; Lent & Wygodzinsky.

Yamazaki, A. *see* Tokunaga, Tsujita & Yamazaki.

3290.—Yang, Chi-kun. New records of Neuropterous insects from China—Coniopterygidae Enderlein, 1905. [In Chinese with English summary.] Ann. ent. sinici, Peking **1** 1951 pp. 341–347, 11 figs.

Yang, Chi-kun *see* Liu, Yang & Liao ; Woo & Yang.

3291.—[Yaremenko, I. I.] Contribution to the question of the change in the structure of the cocoon of the Chinese oak silkworm. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **16** 1951 pt. 1 pp. 46–47, 3 figs. [Lep.]

3292.—Yasumatsu, K. Some analyses on the growth of insects with special reference to a Phasmid, *Phraortes kumamotoensis* Shiraki (Orthoptera). J. Dep. Agric. Kyusyu Univ., Fukuoka **8** 1946 pp. 1–579, 47 figs.

3293.—Yasumatsu, K. Rearing of flea larvae on various diets. J. Fac. Agric. Kyushu Univ., Fukuoka **9** 1949 pp. 121–126. [Siphonapt.]

3294.—Yasumatsu, K. *Bombus* and *Psithyrus* of Shansi, N. China (Hymenoptera, Apidae). Mushi, Fukuoka **22** 1951 pp. 59–62.

3295.—Yasumatsu, K. Mutillidae of Shansi, North China (Hymenoptera). Mushi, Fukuoka **22** 1951 pp. 69–72.

3296.—Yasumatsu, K. A new *Dryocosmus* injurious to chestnut trees in Japan (Hym., Cynipidae). Mushi, Fukuoka **22** 1951 pp. 89–92, 1 pl.

3297.—Yasumatsu, K. Sur une remarquable Aphidiide du Japon (Hymenoptera). Rev. franç. Ent., Paris **18** 1951 pp. 171–174, 1 fig.

3298.—Yasumatsu, K. Apoidea of Micronesia. III. Records of the genera *Megachile, Heriades, Ceratina* and *Prosopis* (Hymenoptera). Tenthredo, Kyoto **3** 1942 pp. 335–348, 1 pl. 5 figs.

3299.—Yasumatsu, K. & **Brown,** jr., W. L. Revisional notes on *Camponotus herculeanus* Linné and close relatives in Palearctic regions (Hymenoptera : Formicidae). J. Fac. Agric. Kyushu Univ., Fukuoka **10** 1951 pp. 29–44.

3300.—Yasumatsu, K. & **Hirashima,** Y. Zwei neue *Sphecodes*-Arten aus Japan nebst Beschreibung Weibchens von *Sphecodes esakii* Strand et Yasumatsu. Insecta matsum., Sapporo **17** 1951 pp. 121–125, 1 pl. [Hym.]

3301.—Yasumatsu, K. & **Hirashima,** Y. Two new species of the genus *Nomada* from Japan and Korea (Hymenoptera : Apidae). Trans. Shikoku ent. Soc. **2** 1951 pp. 53–56, 8 figs.

3302.—Yasumatsu, K. & **Tachikawa,** T. Investigations on the Hymenopterous parasites of *Ceroplastes rubens* Maskell in Japan. J. Fac. Agric. Kyushu Univ., Fukuoka **9** 1949 pp. 99–119, 2 pls.

Yasumatsu, K. *see* Brown & Yasumatsu ; Morimoto, Iwata & Yasumatsu.

3303.—Yasuzumi, G. & **Miyao,** G. Amino acid constituents of prochromosomes isolated from blood cells of various animals. Science, Lancaster, Pa. **114** 1951 pp. 38–39. [Dipt.]

Yates, W. W. *see* Lindquist, Yates & Hoffman.

3304.—Yie, Shi-Tao. The biology of Formosan Panorpidae and morphology of eleven species of their immature stages. Mem. Coll. Agric. Taiwan Univ., Taipeh **2** 1951 no. 4, 111 pp. 27 pls. 6 figs. [Mecopt.]

3305.—Yoshida, T. Experimental studies on the interspecific competition between the granary beetles. No. 1. [In Japanese with English summary.] Oyô-Kontyû, Tokyo **6** 1950 pp. 117–126. [Col.]

3306.—Yoshimoto, C. M. & **Millspaugh,** D. D. A preliminary list of the Calliphorinae (Diptera) known to occur in Iowa. Proc. Iowa Acad. Sci., Des Moines **57** (1950) [? 1951] pp. 545–547.

3307.—Young, F. N. A new water-beetle from Florida, with a key to the species of *Desmopachria* of the United States and Canada (Coleoptera ; Dytiscidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **46** 1951 pp. 107–112, 1 pl.

Yu, C. S. *see* Chang & Yu.

Yunus, C. *see* Latif & Yunus.

3308.—Zaazou, H. T. The effect of age on the host-selection principle. Bull. Soc. Fouad ler Ent., Cairo **35** 1951 pp. 167–174. [Col.]

3309.—Zacher, F. Die Nährpflanzen der Samenkäfer. Z. angew. Ent., Berlin **33** 1951 pp. 210–217. [Col.]

3310.—Zahar, A. R. The ecology and distribution of black-flies (Simuliidae) in south-east Scotland. J. Anim. Ecol., London **20** 1951 pp. 33–62, 5 pls. 2 figs. [Dipt.]

3311.—Zaharieva - Stoilova, B. Studies on the composition of the order and the propagation of the genus *Anisoplia*, Fam. Scarabaeidae (Coleopt.) in Bulgaria. [In Bulgarian with English summary.] Bull. Inst. zool. Acad. bulg. Sci., Sofia **1** 1951 pp. 334–339.

3312.—Zahradník, J. Contribution à la connaissance des cochenilles (Homopt., Coccoidea). Acta Soc. ent. Čsl., Prague **48** 1951 pp. 198–200, 3 figs.

Zakopal, J. *see* Povolný & Zakopal.

3313.—[**Zalesskiĭ,** Yu. M.] New permian insects of the order Protorthoptera. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **78** 1951 pp. 1005–1008, 4 figs. [Fossil.]

3314.—[**Zalesskiĭ,** Yu. M.] A new representative of permian insects of the order Protoperlaria. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **81** 1951 pp. 81–84, 3 figs. [Fossil.]

3315.—[**Zalesskiĭ,** Yu. M.] A new representative of Archodonata. [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **81** 1951 pp. 269–271, 2 figs. [Fossil.]

3316.—**Zander,** E. Handbuch der Bienenkunde in Einzeldarstellungen. III. Der Bau der Biene. 4th revd edn. Ludwigsburg, Eugen Ulmer 1951 198 pp. 210 figs. [Hym.]

3317.—**Zander,** E. Die Eigenart der Honigbiene (*Apis mellifica* L.). Z. angew. Ent., Berlin **33** 1951 pp. 52–68. [Hym.]

3318.—**Zangheri,** S. Contributi alla conoscenza dell' entomofauna delle leguminose da seme. I. Boll. Ist. Ent. Bologna **18** 1951 pp. 93–116, 10 figs.

3319.—**Zavadil,** V. Duae generis *Nysson* e Czechoslovakia species novae (Hym.–Sphecidae). Ent. Listy, Brno **13** 1951 pp. 114–116, 2 figs. [Hym.]

3320.—**Zavadil,** V. Contribution à l'extension des Hyménoptères capables de transporter le pollen et des Hyménoptères rapaces en Slovaquie. [In Czech with French summary.] Ent. Listy, Brno **14** 1951 pp. 75–88.

3321.—**Zavřel,** J. & **Pax,** F. Die Chironomidenfauna mitteleuropäischer Quellen. Arch. Hydrobiol., Stuttgart Suppl. **18** 1951 pp. 645–677, 2 figs. [Dipt.]

3322.—[**Zhovtuiĭ,** I. F.] The number of generations and the duration of the cycle of development of *Musca domestica* L. under conditions of Baraba (Western Siberia). [In Russian.] C.R. Acad. Sci. URSS, Moscow (N.S.) **80** 1951 pp. 477–480. [Dipt.]

3323.—**Ziarkiewicz,** T. Studies on the biology of insects infesting some medicinal herbs. Ann. Univ. Mariae Curie Skłodowska, Lublin (E) **6** 1951 pp. 201–229.

Ziegler, J. B. *see* Rawson, Ziegler & Hessel.

3324.—[**Zimin,** L. S.] A new species of the genus *Chorezmia* Zim. (Diptera, Larvivoridae) from Central Asia. [In Russian.] Ent. Obozr., Moscow **30** 1949 pp. 420–422, 2 figs.

3325.—[**Zimin,** L. S.] Fn SSSR. Insects-Diptera 18 no. 4. Fam. Muscidae, true flies (tribes Muscini, Stomoxydini). [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **45** 1951 286 pp., 472 figs.

3326.—**Zimm,** G. G. An analysis of growth abnormalities associated with the eye-mutant lobe in *Drosophila melanogaster*. J. exp. Zool., Philadelphia **116** 1951 pp. 289–319, 6 figs. [Dipt.]

3327.—**Zimmerman,** E. C. Notes on the Buchanan White types of Hawaiian Heteroptera. Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 333–336.

3328.—**Zimmerman,** E. C. A new *Protaulacistis* from Kauai (Lepidoptera : Pyraustinae). Proc. Hawaii. ent. Soc., Honolulu **14** 1951 pp. 337–340, 3 figs.

3329.—[**Znamenskiĭ,** V. V.] Materials on the ecology of the oviposition of the Asiatic locust. [In Russian.] Zool. Zh., Moscow **30** 1951 pp. 140–142. [Orth.]

Znoĭko, D. V. *see* Ogloblin & Znoĭko.

3330.—**Zocchi,** R. Contributi alla conoscenza degli insetti delle foreste I. *Cryptorrynchus lapathi* L. (Coleoptera Curculionidae). Boll. Ist. Ent. Bologna **18** 1951 pp. 245–258, 9 figs.

3331.—**Zocchi,** R. *Evergestis extimalis* Scopoli (Lepidoptera Pyralidae). Boll. Ist. Ent. Bologna **18** 1951 pp. 350–379, 25 figs.

3332.—**Zukowsky,** B. Zwei neue südamerikanische Aegeriiden. Ent. Z., Frankfurt a. M. **60** 1950 pp. 22–23. [Lep.]

3333.—Zumpt, F. New *Sarcophaga* species from the Ethiopian region (Diptera : Calliphoridae). J. ent. Soc. sthn Afr., Pretoria **14** 1951 pp. 171–199, 15 figs.

3334.—Zumpt, F. Notes on flies (Diptera Brachycera) from the Madagascan region. I. Mém. Inst. sci. Madagascar, Tananarive **5A** 1951 pp. 65–69, 1 fig.

Zumpt, F. *see* De Meillon & Zumpt.

3335.—[**Zvereva,** O. S.] New forms of larvae of Tendipedidae (Diptera) from the rivers Pechora and Vuichegda. [In Russian.] Ent. Obozr., Moscow **31** 1950 pp. 262–284, 20 figs.

II.—SUBJECT INDEX.

N.B.—The full reference may be obtained from "Titles" by means of the Author's name and number.

GENERAL.

TEXTBOOKS, TREATISES.

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HISTORICAL.

Pacific Coast Entomological Society, Pan-Pacific Ent. **27** pp. 97–119, 4 figs. ; Chu & Kao, Commentary on the Pen Ts'ao Kang Mu (Chinese materia medica) by Li Shih-Chen (about 1596), **552;** Clay & Hopkins, Early literature on Mallophaga, II, 1763–75, **575;** Eichler, parasitology, **827;** Esaki, Bunzan (1797–1857) illustrations and collections of Japanese Lep., Bult. sci. Kyushu Univ. **9** 1941 pp. 425–454, 6 pls. 10 figs. ; Gonzalez Sol, Guatemala, **1084;** Hackray, Entomologists of Verviers region, Rev. verviet. Hist. nat. **8** pp. 122–126 ; Hudson, entomology in Wellington, New Zealand, 60 years ago, **1369;** v.

KÉLER, Homer's "kynoraistes", **1522**; LARSEN, Pehr Kalm in America in 1750, Amer. Midl. Nat. **46** pp. 760–766; LEKANDER, occurrences of forest insects in Sweden 1741–1945, **1738**; MELIS, Stazione di Entomologia agraria di Firenze 1875–1950, Redia **35** 1950 pp. iii–xxviii, 8 pls., 1 fig.; PENN, Louisiana, **2238**; TIPPMANN, *Acrocinus longimanus* (Lamiid.), **2936**.

BIOGRAPHY.

ALFKEN, by Amsel, Beitr. Naturk. Niedersachs. no. 8 1949 pp. 26–28; ANDREWES, by Britton, Ent. mon. Mag. **87** p. 64; ANNAND, by Cardon & White, J. econ. Ent. **44** pp. 268–270, 1 photo; by Hoyt & White, Proc. ent. Soc. Wash. **53** p. 153, 1 photo; AUDCENT, by A[ndrews], Ent. Rec. **63** pp. 99–100; by E. R. G[offe], J. Soc. Brit. Ent. **3** p. 285; by Goffe, Ent. mon. Mag. **87** p. 159; by Sachtleben, Beitr. Ent., Berlin **1** p. 192; BARBER, by Hall, Ann. ent. Soc. Amer. **43** p. 612; by Fauré, Agric. tecn., Chile **10** pp. 90–92, 1 photo; BEURET-MADEUX, by Vogt, Mitt. ent. Ges. Basel (N.F.) **1** p. 45; BODENMANN-SOLLER, Ver.-Nachr. Ent.-Ver. Basel **6** 1949 p. 27; BORCHMANN, by Gebien, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. XXI–XXIII, 1 photo; BRUNER, by de Zayas, Bol. Hist. nat. Soc. Felipe Poey **2** 1951 pp. 111–113; BUNNETT, Proc. S. Lond. ent. nat. Hist. Soc. **1949-50** p. xli, 1 photo; BURGEON, by Schouteden, Rev. Zool. Bot. afr. **44** pp. (30)–(32), 1 photo; CHATTERJEE, by Lal, Indian J. Ent. **12** pp. 257–258; CRAWFORD, by Gahan, Russell, & Heinrich, Proc. ent. Soc. Wash. **53** pp. 107–109, 1 photo; DAUPHIN, by Vallière, Rev. sci. Bourbonn. **1940–44** 1945 pp. 12–21; W. T. DAVIS, by Parshley, **2187**; DESPAX, by Astre, Bull. Soc. Hist. nat. Toulouse **85** 1950 pp. 67–70, 1 photo; DONISTHORPE, Ent. mon. Mag. **87** p. 215; Ent. Rec. **63** p. 228; J. Soc. Brit. Ent. **4** pp. 23–24; by Sachtleben, Beitr. Ent., Berlin **1** p. 191; by van der Wiel, Ent. Ber., Amst. **13** p. 317; W. H. EDWARDS (1822–1909), by dos Passos, J. N.Y. ent. Soc. **59** pp. 129–133, Annotations of "Entomological Reminiscences" pp. 134–186; ESCHERICH, by Zwölfer, Z. angew. Ent. **33** pp. 1–5, 1 photo; EWING, J. econ. Ent. **44** p. 270; by Baker & Gurney, Proc. ent. Soc. Wash. **53** p. 147; FAHRENHOLZ, by Viets, Abh. naturw. Ver. Bremen **32** pp. 457–459, 1 photo; FAHRINGER, by Kurir, Z. wien. ent. Ges. **36** pp. 75–76; by Schimitschek, Z. angew. Ent. **32** pp. 609–610, 1 photo; FINOT, Bull. Soc. ent. France **55** p. 145; FLEISCHER, by Kratochvíl, Ent. Listy **13** p. 96, 1 photo; by Obenberger, Acta Soc. ent. Čsl. **47** 1950 pp. 215–217, 1 photo; FOX WILSON, by Barnes, Ann. appl. Biol. **38** pp. 311–312, 1 photo; by Massee, Nature **167** p. 259; by Massee, Ent. mon. Mag. **87** p. 94; J. R. hort. Soc. **76** pp. 117–118, 1 photo; GARGISH, by Batra, Indian J. Ent. **12** pp. 256–257; GEBIEN, by Martini, Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. VII–XII, 1 photo; GEHLEN, Z. Lepid., Krefeld **1** p. 130; GHOSH, by Bose, Indian J. Ent. **11** pp. 227–228, 1 photo; GUSMANN, by Benick, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. XIV–XV; HÄFLIGER, Ver.-Nachr. Ent.-Ver. Basel **7** 1950 p. 18, 1 photo; HAMM, by Carpenter, Nature **167** p. 220; by B. M. H[obby], J. Soc. Brit. Ent. **3** p. 286; by Richards, Ent. mon. Mag. **87** pp. 97–98, 1 photo; P. F. HARRIS, Entomologist **84** p. 120; HASEBROEK, by Albers, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. XV–XVII; HAYNES, Entomologist **84** p. 48; HOEG, by Hensen, Ent. Medd. **25** pp. 459–462, 1 photo; HOWARD, Bull. Soc. ent. Fr. **56** pp. 4–5; by Fauré, Agric. tecn., Chile **10** pp. 87–90, 1 photo; by Leefmans, Ent. Ber., Amst. **13** pp. 209–210; by L. R. N[atvig], Norsk ent. Tidsskr. **8** p. 228; by Wade, Ann. ent. Soc. Amer. **43** pp. 610–611; IMMS, Indian J. Ent. **11** pp. 229–230; by L. R. N[atvig], Norsk ent. Tidsskr. **8** p. 229; KEMNER, by L. R. N[atvig], Norsk ent. Tidsskr. **8** pp. 229–230; KONINGSBERGER, by Roepke, Ent. Ber., Amst. **13** pp. 257–258; KOPEĆ, by Bounhiol, Rev. Zool. agric. appl. **50** pp. 71–73; KOTZSCH, by Holik, Ent. Z. **60** 1950 pp. 97–99, 1 photo; KROGH, by Weis-Fogh, Ent. Medd. **25** pp. 435–444, 1 photo; KRÜGER, by Prosdocimo, Ann. Mus. libico Stor.

nat. **2** 1940 pp. 355–358, 1 photo; Kuznetzov, by Pavlovskiĭ, Ent. Obozr. **30** 1949 pp. 171–177, 1 photo; Lodeizen, by Stärcke, Ent. Ber., Amst. **13** pp. 225–226; Lucht, by Roepke, Ent. Ber., Amst. **13** p. 286; by Roepke, Idea **9** p. 8; Luk'yanovich, Ent. Obozr. **31** 1950 pp. 315–319, 1 photo; MacGillavry, by van der Wiel, Ent. Ber., Amst. **13** pp. 241–243; Machulka, Ent. Bl. **45–46** pp. 159–160; Mantero, by Invrea, Ann. Mus. Stor. nat. Genova **64** pp. 335–337; Marhan, by Moucha, Acta Soc. ent. Čsl. **48** pp. 98–99; Maulik, by Y.R.R., Indian J. Ent. **12** pp. 255–256; Meikle, by L.A.L.K., J. Soc. Brit. Ent. **3** p. 287; Metzky, by Reisser, Z. wien. ent. Ges. **36** pp. 2–3, 1 photo; Paul Meyer, by Sachtleben, Beitr. Ent., Berlin **1** pp. 191–192; Micheli, Boll. Soc. ent. ital. **81** p. 1; Middleton, Proc. Linn. Soc. N.S.W. **76** p. V; Missiroli, by Russell, J. nat. Malar. Soc. **10** pp. 366–368, 1 photo; Moulton, by Bailey, Pan-Pacif. Ent. **27** p. 145; Nagel, by Sachtleben, Beitr. Ent., Berlin **1** p. 192; Neveu-Lemaire, by Lavier, Ann. Parasit. hum. comp. **26** pp. 271–273, 1 photo; O'Byrne, by Meiners, Lepidopt. News **5** p. 11, 1 photo; Ottolengui, by Weiss, J. N.Y. ent. Soc. **59** pp. 93–98; Pfleger, by Havelka, Acta Soc. ent. Čsl. **48** pp. 141–142, 1 photo; Pospelov, Ent. Obozr. **31** 1950 pp. 301–309, 1 photo; Procter, by Alexander, Ent. News **62** pp. 237–241; J. New York ent. Soc. **59** pp. 217–219; Reuter, by Frey, Notul. ent. **31** pp. 1–2, 1 photo; by Suomalainen, Ann. ent. fenn. **17** pp. 49–51, 1 fig.; Richard, by Dasse, Lambillionea **51** p. 61; Rimsky-Korsakov, Ciencia, México **11** p. 162; by Uvarov, Ent. mon. Mag. **87** p. 215; Rohwer, by Bishopp, Sasscer & Muesebeck, J. econ. Ent. **44** pp. 437–439, 1 photo; by de Gryse, Canad. Ent. **83** p. 92; by Muesebeck, Gahan & Sasscer, Proc. ent. Soc. Wash. **53** pp. 227–230, 1 photo; Saarinen, by Kontuniemi, Ann. ent. fenn. **17** pp. 1–2, 1 photo; by Lindqvist, Notul. ent. **31** pp. 45–47, 1 photo; Schatzmayr, by Parisi, Atti Soc. ital. Sci. nat. **90** pp. 5–8; Schmidt-Hoffmann, Ver.-Nachr. Ent.-Ver. Basel **7** 1950 p. 35; Schwing, J. econ. Ent. **44** p. 822, 1 photo; Shannon, by McAtee & Wade, Proc. ent. Soc. Wash. **53** pp. 211–216; Siebenhüner, by Culatti, Mitt. schweiz. ent. Ges. **24** p. 200, 1 photo; Silvestri, by L. R. N[atvig], Norsk ent. Tidsskr. **8** p. 229; by Masi, Mem. Soc. ent. ital. **29** pp. 125–135, 1 photo; by Russo, Boll. Lab. Ent. agr. Portici **10** pp. 1–7; by Cotronei, t.c. pp. 8–23, 1 photo; Šnoflák, by Kratochvíl, Ent. Listy **14** pp. 93–95, 1 photo; G. H. Sperry, by McElvare, Bull. Brooklyn ent. Soc. **46** p. 21; Štěrba, by Heyrovský, Acta Soc. ent. Čsl. **48** p. 263; Šulc, by Slabý, Acta Soc. ent. Čsl. **48** pp. 99–100; Sweadner, by Remington, Lepidopt. News **5** pp. 57–58, 1 photo; Testout, by Schaefer, Terreaux & Coquillat, Bull. Soc. linn. Lyon **20** pp. 73–75, 1 photo; Thiele, by Warnecke, Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950] pp. XV–XVII; W. A. Thomas, by Stahl & Reid, J. econ. Ent. **44** pp. 821–822, 1 photo; Toxopeus, by Diakonoff, Lepidopt. News **5** p. 36; by Lieftinck, Idea **9** pp. 1–8, 1 photo; by Roepke, Ent. Ber., Amst. **13** p. 289; Trägårdh, by van Eyndhoven, Ent. Ber., Amst. **13** pp. 335–336; by Saalas, Ann. ent. fenn. **17** pp. 89–92, 1 photo; by Sachtleben, Beitr. Ent., Berlin **1** p. 191; by T. H. S[høyen], Norsk ent. Tidsskr. **8** pp. 230–231; by Sellnick, Z. PflKrankh. **58** pp. 278–279; by Turk, Ent. mon. Mag. **87** p. 240; H. J. Turner, by Riley, Nature **167** p. 176; by Donisthorpe, Ent. mon. Mag. **87** pp. 94–95; Ullyett, by J. C. F[aure], J. ent. Soc. sthn Afr. **14** p. 203, 1 photo; A. C. W. Wagner, by Kröber, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. X–XII, 1 photo; Hans Wagner, by Skoraszewsky, Ent. Bl. **45–46** pp. 155–158, 1 photo: G. A. Waterhouse, Proc. Linn. Soc. N.S.W. **76** p. V; L. P. Wehrle, by H. L. Wehrle, Ann. ent. Soc. Amer. **44** p. 166; White, by Hoyt & Caffrey, J. econ. Ent. **44** pp. 435–436, 1 photo; Wittmer, by Fischer, Ent. NachrBl. öst. schweiz. Ent. **3** p. 120; Wolcott, by Dybas, Coleopt. Bull. **5** pp. 33–36, 1 photo.

BIBLIOGRAPHY.

Current entomological literature, **1**; BEQUAERT, Say's two tracts of 1831 and 1832, Psyche **57** p. 146; BORGMEIER, Neotropical fauna, Rev. Ent., Rio de J. **22** pp. 398–400; FAIRCHILD, Lutz's works on Tabanidae, **882**; FREUND, of Anoplura to 1948, **975**; GRIFFIN, Isoptera, 1758–1949, **1137**; HARMON & POLLARD, of animal venoms, **1219**; HEMMING, title page and index to vol. 1 of the Bulletin of Zoological Nomenclature, Bull. zool. Nomen. **1** XXVII pp. + pp. 289–344; HERSKOWITZ, *Drosophila*, chemical substances studied, **1296**; HINTON, works on structure and function of endocrine glands, **1316**; VON KÉLER, remarks on Eichler's supplement to bibliography of Mallophaga, **1520**; LAMBERT, library catalogue of Inst. Etudes centrafricaines, Brazzaville, Mém. I.E.C. no. 4 152 pp.; MAYNARD, Collembola of the world, **1940**; PFEFFER, insects of Bohemia, Moravia and Silesia, 1800–1940, **2264**; SALMON, of Collembola, **2547**; VOGT, Nitidulidae, literature on occurrence and biology, **3074**; WADE, selected bibliography of insects of the World associated with sugar cane, **3086**.

Works of: ALFKEN, by Amsel, Beitr. Naturk. Niedersachs. no. 8 1949 pp. 28–29; BORCHMANN, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. XXIV–XXVI; BRUNER, by De Zayas, Bol. Hist. nat. Soc. Felipe Poey **2** pp. 113–122; CALVERT (from 1889–1950), by Schmieder & Phillips, Ent. News **62** pp. 3–40; DESPAX, by Astre, Bull. Soc. Hist. nat. Toulouse **85** 1950 pp. 70–76; ESCHERICH, Z. angew. Ent. **33** pp. 5–11; FAHRENHOLZ, by Viets, Abh. naturw. Ver. Bremen **32** pp. 460–461; FAHRINGER, important works, Z. wien. ent. Ges. **36** pp. 76–77; FOX WILSON, Ann. appl. Biol. **38** pp. 312–317; GEBIEN, by Weiss, Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [? 1950] pp. XII–XV; GUSMANN, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 p. XV; HOEG, Ent. Medd. **25** p. 462; HUDSON, by Gibbs, Fragm. N.Z. Ent. pp. 176–180; KROGH, by Weis-Fogh, Ent. Medd. **25** pp. 444–445; KRÜGER, by Prosdocimo, Ann. Mus. libico Stor. nat. **2** 1940 pp. 359–360; KUZNETZOV, by Pavlovskiĭ, Ent. Obozr. **30** 1949 pp. 177–180; LUK'YANOVICH, Ent. Obozr. **31** 1950 pp. 319–320; MANTERO, by Invrea, Ann. Mus. Stor. nat. Genova **64** pp. 337–338; O'BYRNE, by Meiners, Lepidopt. News **5** p. 12; OTTOLENGUI, by Weiss, J. N. Y. ent. Soc. **59** pp. 93–94; PLOTNIKOV, publications 1900–1932, Ent. Obozr. **31** 1950 pp. 298–300; POSPELOV, Ent. Obozr. **31** 1950 pp. 309–314; ROUBAL, publications 1935–1950, Acta Soc. ent. Čsl. **47** 1950 pp. 204–210; SAARINEN, by Kontuniemi, Ann. ent. fenn. **17** pp. 2–3; SCHATZMAYR, by Parisi, Atti Soc. ital. Sci. nat. **90** pp. 9–12; SHANNON, by McAtee & Wade, Proc. ent. Soc. Wash. **53** pp. 216–222; SILVESTRI (works on general biology only), by Cotronei, Boll. Lab. Ent. agr. Portici **10** pp. 23–24; ŠNOFLÁK, by Kratochvíl, Ent. Listy **14** pp. 95–96; ŠTĚRBA, by Heyrovský, Acta Soc. ent. Čsl. **48** p. 263; ŠUSTERA, publications 1907–1944, Acta Soc. ent. Čsl. **47** 1950 pp. 213–214; SWEADNER, by Remington, Lepidopt. News **5** p. 58; TESTOUT, by Schaefer, Terreaux & Coquillat, Bull. Soc. linn. Lyon **20** pp. 75–78; A. C. W. WAGNER, Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. XII–XIV; HANS WAGNER, important works, by Skoraszewsky, Ent. Bl. **45–46** pp. 158–159; WOLCOTT, by Dybas, Coleopt. Bull. **5** pp. 36–38.

TAXONOMY.

NABOKOV, measurements of Lep., **2051**; SABROSKY, and ecology, **2532**.

NOMENCLATURE.

Requests for ruling that microfilms do not constitute publication, Bull. zool. Nomen. **2** pp. 306–312; BERNARDI & DE LESSE, Frühstorfer's Nymphalid types, **226**; COCKAYNE, on the new rules on specific, sub-specific and infra-subspecific names, Ent. Rec. **63** pp. 38–40; DAMMERMAN, original spelling and emendation, **661**; DE MEILLON & ZUMPT, restriction of types, **717**; FAIRCHILD, Lutz's Tabanid genera, **882**; FERREIRA D'ALMEIDA & OITICICA, criticism of decision of

Int. Comm. on Zool. Nomen. on *Danaus plexippus*, **901**; Field, Clarke & Franclemont, criticism of Int. Comm. Zool. Nomen.'s decision on name of Monarch Butterfly, Science **113** pp. 68–70; reply, Riley op. cit. **14** pp. 75–76; Grenstead, origin and use of trivial names *nigrita*, *nigritus*, **1128**; Heikertinger, *Chrysomela* and *Chrysolina*, **1257**; Hemming, title page and index to vol. 1 of the Bulletin of Zoological Nomenclature, Bull. zool. Nomen. **1** XXVII pp. + pp. 289–344; report on Opinion 124, **1269**; on Meigen's 1800 names, **1270**; suggestion for declaration to clarify rule f in article 30, **1271**; proposed declaration concerning type sp. with only bibliographical reference, **1272**; proposed declaration on availability of trivial name with only a qualified reference, **1273**; stability in nomenclature, **1274**; Hopkins, proposal concerning spelled-out letters or numerals not being available as trivial names, **1341**; Lindberg, types in Reuter's Palaearctic Heteroptera collection, **1811**; McKeown, reference list of Col. types in Australian Museum, **1873**; Muir-Wood, request for ruling on identical patronymics with or without diacritic marks, Bull. zool. Nomen. **6** pp. 92–94; Hemming op. cit. pp. 94–96; Stubblefield op. cit. pp. 114–115, **2027**; Papp, Cryptorrhynchinae (Col., Curc.) described by Fiedler, **2163**; Pereira Barretto, *Flebotomus* (Dipt., Psychod.), not a lapsus calami, **2248**; Lutz's Tabanid genera published in 1909, **2249**; Viette, definition of holotype, allotype, etc., **3053**.

COLLECTIONS.

Allen, Funkhouser collection of Membracidae to Kentucky Univ., Ann. ent. Soc. Amer. **44** p. 485; Hatch, Coleoptera collections in north-west U.S.A., **1242**; Hubbard, fleas of N.W. Pacific to Snow Entomological Museum, University of Kansas, by Beamer, J. Kans. ent. Soc. **24** p. 11; Lombardi, collection in Milan Museum, by Parisi, Natura, Milan **41** pp. 47–48; Middleton's Australian Lep. to Australia Museum, Proc. Linn. Soc. N.S.W. **76** p. V; Roonwal, Bhasin, Pant & Misra, catalogue of collections at Forest Research Institute, Dehra Dun, **2485**; Sachtleben, corrections to Bailey's 1947 report on German collections, Ann. ent. Soc. Amer. **44** p. 296; Viette, Meyrick's Tineid types in Paris Mus., **3048**; Villiers, types from Inst. franç. Afr. noire in Paris Museum, **3067**.

TECHNIQUE: COLLECTING AND PRESERVATION.

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Trichoptera. — KIMMINS, Hydroptilidae, India, key to genn., list of spp., **1539**; TSUDA, Japan, **2975A**.

Neuroptera. — YANG, *Semidalis* sp., *Coniopteryx pulverulenta*, new to China, **3290**.

Diptera.—CHANG, *Lasiohelea taiwana*, *Culicoides sugimotonis*, *oxystoma* (Ceratop.), new to China, **515**; ITO, Tr*y*petids new to Japan, **1403**; MIYATAKE, Phryneidae, Shikoku, Japan, **1997**; OKADA, Bibionidae, Shansi, N. China, **2124**; QUTUB-UD-DIN, Culicines new to Pakistan, **2352**; sandflies (Psychod.), new to Pakistan, **2353**; TAKAGI, Tabanids, N. Manchuria, **2867**; THOMAS, some Calliphorids, S.E. Szechuan, **2909**; WIJESUNDARA, *Aëdes* (s. str.), Ceylon, **3202**.

Hemiptera. — ESAKI & ISHIHARA, Pentatomoidea, Shansi, N. China, II, **859**; PRABHAKER RAO, Iceryini (Cocc.), **2317**.

Odonata. — LAIDLAW, Ceylon, derivation of fauna, **1663**.

Dermaptera. — BEĬ-BIENKO, Sakhalin & Kurile Is., **184**.

Orthoptera. — BEĬ-BIENKO, Sakhalin & Kurile Is., **184**; SANDRASAGARA, Tetrigidae, Eumastacidae, Acrididae, Ceylon, catalogue, distribution, **2557**.

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Coleoptera. — BOHART, Myrmecolacidae (Stylop.), Philippines, revision, **289**; GUIGNOT, *Hydaticus* sp. n. (Dytisc.), Philippines, **1169**; JOLIVET, *Chrysolinoides* gen. et sp. n. (Chrysom.), Philippines, **1459**; KASZAB, *Gonocephalum* sp. n. (Tenebr.), Philippines, **1510**; KULT, *Clivina* spp. n., *C. wallacei* subsp. n. (Carab.), Philippines, **1641**; KULZER, new Tenebrionids, Philippines, **1642**; SCHEDL, Scolytidae, Indo-Malaya, new spp., Philippines, **2601**; STROHECKER, new Endomychids, Philippines, Borneo, Celebes, **2841**; TANNER, some Cicindelids from Philippines, **2893**; UHMANN, *Javeta* spp. n. (Hisp.), Philippines, **2990**; VOSS, *Oxydema planata* subsp. n. (Curc.), Philippines, **3077**.

Hymenoptera. — LECLERCQ, *Piyuma* sp., new to Sumatra, **1713**.

Lepidoptera. — DIAKONOFF, *Pseudodoxia* (Oecoph.), Java, key, **729**; *Nemophora* (Adel.), Malaya, revision, **730**; FRANCLEMONT, *Pseudaletia* sp. n. (Agrot.), Philippines, **950**; KALIS & TOXOPEUS, Celebes, rare spp., **1493**; ROEPKE, Heterocera, Sumatra, **2477**; TOXOPEUS, *Amathusia*, Java, revision, **2962**.

Trichoptera. — ULMER, Sunda Is., pt. I, **2993**.

Diptera. — VAN DOESBURG, Syrphids, Java, Sumatra, **751**; HARDY, *Philia* sp. n. (Bibion.), Philippines, **1212**; JOBLING, Streblids (incl. new spp.), **1448**; KNIGHT & HULL, *Aëdes* spp. n. (Culic.), Philippines, **1574**; *Aëdes* subgenn. *Mucidus*, *Ochlerotatus*, *Finlaya* (Culic.), Philippines, keys, **1575**; MCARTHUR, *Anopheles* (Culic.), Borneo, list, **1857**; ROZEBOOM, *Anopheles* sp. n. (Culic.), Philippines, **2510**.

Siphonaptera.—TRAUB, of Chicago Nat. Hist. Mus. Expedition to Philippines, 1946–47, **2963**; *Hoogstraalia* gen. et sp. n., Philippines, **2964**.

Hemiptera.—DRAKE & HOTTES, *Valleriola moesta* (Leptop.) new to Java, **775**; LALLEMAND, *Conmachaerotia* sp. n. (Cercop.), Philippines, **1669**; *Phymatostetha perspicillaris* subspp. n. (Cercop.), Philippines, **1670**; PRABHAKER RAO, new Coccids, Philippines, **2317**; TAKAHASHI, Aphidae, Malaya, list, **2868**; Pseudococcidae, Malaya, **2871**; Coccids, Riouw Arch., **2872**; WYGODZINSKY, *Trichotonannus* sp. n. (Cryptostemm.), Philippines, **3285**.

Odonata. — SCHMIDT, *Coeliccia* sp. n. (Platycn.), Philippines, **2621**.

Orthoptera. — Rehn, *Apodesmoptera* gen. et sp. n. (Acrid.), Philippines, **2394**; Willemse, Acridoidea, Indo-Malaya and adjacent regions, **3208**.

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Lepidoptera. — Roepke, *Trabala* (Lasioc.), Indo-Malaya, revision, **2476**.

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Insecta. — Cheesman, *Polistes* (Spheg.), new spp. and subsp., **526**.

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Coleoptera. — Tanner, some Cicindelids from Admiralty Is., **2893**.

Hemiptera. — China & Carvalho, new Mirids, New Britain, **540**.

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Coleoptera. — Gressitt, *Leontium* sp. n. (Ceramb.), **1129**; Kulzer, new Tenebrionids, **1642**.

Lepidoptera. — Diakonoff, *Nemophora* sp. n. (Adel.), **730**.

Trichoptera. — Ulmer, *Triaenodes* (Leptocer.), *Neolepidostoma* (Serocostom.) spp. n., Key Is., **2993**.

Odonata. — Fraser, *Xiphiagrion cyanomelas* r. n., Halmaheira, **961**; Lieftinck, *Lestes* sp. n., Aru I., **1801**.

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Coleoptera. — Breuning, new Lamiids, **364**; Bryant, new Halticids, **412**; Endrödi, new Aphodiids, **849**; Gressitt, new Cerambycoids, **1129**; Jedlička, *Chlaenius* (Carab.), new spp. and ab., **1440**; Kult, *Clivina* sp. n. (Carab.), **1641**; Kulzer, new Tenebrionids, **1642**; Mouchamps, *Macrogyrus* subgen. n. et sp. n. (Gyrin.), **2023**; Van Zwaluwenburg, new Elaterids, **3021**.

Hymenoptera. — Linsenmaier, *Stilbum* sp. n. (Chrysid.), **1820**.

Lepidoptera. — Barrett & Burns, butterflies, **131**; Collenette, *Parakanchia* sp. n. (Lymantr.), **596**.

Trichoptera. — Mosely, *Hydropsyche* sp. n., **2021**; Ross, *Agapetus* spp. n., **2494**.

Diptera.—Alexander, new Tipulids, **31**; Tipulids, I, **37**; Bonne-Wepster, *Bironella* spp. n. (Culic.), **299**; Hering, new Trypetids, **1291**.

Hemiptera.—Drake, new Tingids, **766**; Miller, *Ectomocoris* sp. n. (Reduv.), **1980**.

Ephemeroptera. — Lieftinck, Palingeniidae, **1802**.

Orthoptera. — Chopard, new Gryllids, **545**; Rehn, new Acridids, **2394**.

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Coleoptera. — Endrödi, *Xylotrupes gideon* subsp. n. (Dynast.), Bougainville, **848**; Gressitt, new Cerambycoids, **1129**; Helfer, *Metataenia clotildae* subsp. n. (Bupr.), Bougainville, **1264**; Kulzer, *Thesilea*, *Chariotheca* spp. n. (Tenebr.), **1642**; Strohecker, *Encymon* sp. n. (Endomych.), **2839**; Tanner, some Cicindelids, **2893**.

Hymenoptera. — Krombein, Apidae, **1628**.

Lepidoptera. — Collenette, *Dasychira* sp. n. (Lymantr.), **596**.

Neuroptera. — Kimmins, new spp. and list, **1541**.

Diptera. — Alexander, new Tipulids, **31**; James, *Solva* sp. n. (Erinn.), **1416**.

Hemiptera. — Drake, *Hydrometra* sp. n., **767**.

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Hymenoptera. — Clark, Formicidae, Vol. I, Myrmeciinae, **565**.

Lepidoptera. — Barrett & Burns, butterflies, **131**.

Diptera. — Hardy, Trypetids, **1211**; Paramonov, *Docidomyia* (Bombyl.) key, *Microtropeza* (Tach.) revision, **2169**.

Plecoptera. — Kimmins, Gripopterygidae, Nemouridae, revision, **1542**.

Odonata. — Lieftinck, Cape York Peninsula, list, **1801**.

Orthoptera. — CHOPARD, Gryllo idea, revision, **545.**

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Hymenoptera. — KEMPF, Cephalotini (excl. *Paracryptocerus* subgenn. *Harnedia, Cyathomyrmex*), revision, **1525**; MICHENER, *Hemisia* (Apid.), subgeneric groups, key, **1968.**

Lepidoptera. — BROWN, *Papilio*, keys, notes, **397**; CHIARELLI DE GAHAN, *Dyspteris* (Geom.), revision, **532.**

Diptera. — ACZÉL, Richardiinae (Otit.), catalogue, **7**; Conopidae, catalogue, **8**; ALEXANDER, *Tipula* subgenn. *Bellardina, Neotipula*, lists of spp., **36**; ARNAUD, *Paradejeania* (Tach.), revision, **65**; FLOCH & ABONNENC, *Phlebotomus* (Psychod.), key, **927**; JOHANNSEN, *Pterobosca* (Ceratop.), key, **1450**; ORTIZ, *Culicoides* (Ceratopog.), revision, **2141**; PEREIRA BARRETTO, *Phlebotomus* (Psychod.), distribution, **2246**; QUATE & WIRTH, *Maruina* (Psychod.), revision, **2346**; WIRTH, *Leptoconops* spp. (Ceratop.), new records, **3238.**

Hemiptera.—CARVALHO, Neotropical Mirids, XLIV, **491**; CARVALHO & CHINA, *Eccritotarsus* and allies (Mirid.), check list, **493**; DA COSTA LIMA, CAMPOS SEABRA & HATHAWAY, *Apiomerus* (Reduv.), revision, **641**; KORMILEV, Colobathristid genn., key, **1609**; SLATER, Lygaeid nymphs, mid-west, key, **2727**; WYGODZINSKY, *Metapterus* (Reduv.), revision, **3286**; Etrichodiinae (Reduv.), key to genn., **3288.**

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Hymenoptera. — BUCKELL, Bombidae, Br. Columbia, **423**; BUGBEE, *Eurytoma* from galls of *Diplolepis* (Cynip.) on *Rosa*, key, **424**; *Tenuipetiolus* (Eurytom.), key, **425**; CHANDLER, Bombidae, Indiana, **513**; DREISBACH, Bembecids (Spheg.), Michigan, keys, records, **783**; EVANS, Pompilini, revision, pts. 2, 3, **864**; MICHENER, Megachilids (Apid.), new records, **1969**; Megachilids (Apid.), Texas, **1970**; MUESEBECK, KROMBEIN & TOWNES, synoptic catalogue, **2025**; RICHARDS, *Neodryinus*, key to ♀♀, **2428**; SCHUSTER, *Ephuta* (Mutill.), revision, **2652**; STEVENS, bees, N. Dakota, **2810**; TOWNES, H. & M., Grypocentrini (Ichn.), revision, **2959.**

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Trichoptera. — BETTEN, *Pycnopsyche*, revision, **241**; KIMMINS & DENNING, McLachlan types in Brit. Mus., **1547**; ROSS, *Anagapetus* (Rhyacophil.), key to ♂♂, **2495**; SCHMID, *Ironoquia* (Limneph.), U.S.A., revision, **2611.**

Diptera. — CURRAN, *Spilomyia* (Syrph.), revision, **654**; DODGE, Muscoidea, new records, U.S.A., **749**; FREEBORN & BOHART, mosquitos, California, **964**; GERHARDT, mosqui-

tos, Wyoming, **1036**; HUCKETT, *Eremomyia* (Musc.), revision, **1366**; *Hylemya* key to spp. and subspp. of *setiventris* complex (Musc.), **1367**; JOHANNSEN, *Trichocladius* (Chiron.), N.E. states, revision, **1449**; KNIGHT, *Aëdes* (*Ochlerotatus*) *punctor* subgroup (Culic.), key, **1572**; KNOWLTON & KARDOS, Heleidae, Utah, list, **1578**; McALPINE, *Herina* (Otitid.), **1855**; MacARTHUR, Hippoboscidae, Wisconsin and adjacent states, **1858**; MELANDER, Tethinids (Helomyz.), revision, **1946**; MIDDLEKAUFF, Tabanids, California, **1972**; NOWELL, Dixidae, W.N. Amer., revision, **2101**; PRITCHARD, Lestremiini (Cecid.), revision, **2338**; QUISENBERRY, *Tephritis* (Tryp.), revision, **2351**; REES & NIELSEN, Culicids, Utah, new records, **2385**; RHODEBECK & MILLSPAUGH, Rhagionids, Iowa, **2420**; ROBACK, Calyptrata, keys to famm., **2453**; SABROSKY, *Gaurax* (Chlorop.), revision, **2529**; *Lasiopleura* (Chlorop.), revision, **2531**; SAILER & LIENK, Calliphoridae, Alaska, list, **2541**; SUTTON & MILLSPAUGH, Tabanids, Iowa, revision of list, **2857**; WEATHERSBEE, ARNOLD & ASKEY, mosquitos, S. Carolina, additional records, **3161**; WHEELER, *Dettopsomyia* (Drosoph.), *Ptilomyia* (Ephydr.) new to fauna, **3190**; WIRTH, *Culicoides* (Ceratop.), Alaska, key, **3235**; *Probezzia* (Ceratopog.), revision, **3237**; Heleids (Ceratop.), Virginia, new records, **3239**; YOSHIMOTO & MILLSPAUGH, Calliphorinae, Iowa, preliminary list, **3306**.

Siphonaptera. — HIGHTOWER & EADS, *Epitedia wenmanni*, *Stenistomera alpina*, new to Texas, J. Parasit. **37** p. 328; HOLLAND, *Ceratophyllus*, Canada, key, **1335**; KNIPPING, MORGAN & DICKE, Wisconsin, list, **1577**; TRAUB & HOFF, New Mexico, **2965**; WISEMAN, Wyoming, **3240**.

Hemiptera. — BAILEY, Tingoidea, New England, **92**; *Stephanitis globulifera* (Tingid.), new to fauna, **93**; BEAMER, *Kelisia* (Delphac.), revision, **162**; BOUDREAUX, Aphids, Lousiana, **319**; BRADLEY, *Cinara* (Aphid.), key to Canadian spp. E. of Rockies, **333**; DeLONG & KNULL, Cicadellidae (Jass.), check list, **705**; DENNIS, Membracids, Wisconsin, list, **722**; ELKINS, Reduviids, Texas, **837**; HERRING, aquatic spp., N. Florida, keys, **1295**; JENSEN & KNOWLTON, Psyllidae, Utah, **1444**; KNULL, Cicadellidae (Jass.) Ohio, additions, **1579**; PENN, Nepids, Hydrometrids, Naucorids, Louisiana, additional records, **2237**; PHILLIPS, on sour-cherry trees, Ontario, annotated list, **2267**; SIBLEY, Reduviids, Louisiana, **2715**; SLATER, Heteroptera, Iowa, new records, **2729**.

Thysanoptera. — BAILEY, *Aeolothrips*, revision, **94**.

Anoplura. — MENZIES, EADS & HIGHTOWER, Texas, list, **1958**; PRATT & LANE, *Hoplopleura*, U.S.A., key, **2322**.

Psocoptera.—MOCKFORD, Indiana, **1998**.

Ephemeroptera. — EDMUNDS, *Stenonema*, new records, J. Kansas ent. Soc. **24** p.162.

Odonata. — BORROR, Maine, new records, **307**; COOK, Kentucky, new records, **623**; GLOYD, Virginia, **1059**; HARWELL, Texas, **1232**; MONTGOMERY, Indiana, records 1941–1950, **2011**; NEEDHAM, prodrome for manual, **2065**; WALKER, Northern Canada survey, **3126**.

Orthoptera. — FLINT, *Ectobius lividus* (Blatt.), new to fauna, Bull. Brooklyn ent. Soc. **46** p. 53; GURNEY, *Conalcaea* complex (Acrid.), revision, **1179**; praying Mantids, U.S.A., **1180**; HAGEMAN, *Arphia sulphurea*, *xanthoptera* (Acrid.), distribution, **1196**.

Collembola. — MAYNARD, New York State, monograph, **1940**.

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Coleoptera. — CAZIER, *Chrysina*, *Plusiotis* (Rutel.), Mexico, **505**; Buprestidae, Mexico, **507**; OBENBERGER, *Colobogaster* (Bupr.), revision, **2106**; VAURIE, *Entimus* (Curc.), revision, **3028**.

Hymenoptera. — MICHENER, *Ashmeadiella* spp. (Apid.), Lower California, Mexico, new records, **1969**; ORFILA, *Stephanus*, key, **2136**.

Lepidoptera. — CARY, Sphingids, distribution, **495**; EVANS, Hesperiidae, pt. 1, Pyrrhopyginae, **867**; FERREIRA D'ALMEIDA, *Cithaerias* (Satyr.), catalogue, distribution list, **898**;

Mechanitis (Danaid.), catalogue, **899**; FREEMAN, Hesperiids, Mexico, new records, **968**; VÁZQUEZ G., *Phoebis sennae* (Pier.) forms, new to Mexico, **3029**.

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Diptera. — BRENNAN, *Anopheles crucians* (Culic.), new to Guatemala, **352**; DALMAT, Simuliidae, Guatemala, list, **659**; DE BUEN, Hippoboscidae, Mexico, on birds, mammals, new records, **683**; FAIRCHILD & HERTIG, *Phlebotomus* (Psychod.), Panama VI–VIII, **883**; FROTA-PESSOA & WHEELER, *Neotanygastrella* (Drosoph.), revision, **993**; GALINDO, CARPENTER & TRAPIDO, *Haemagogus spegazzinii falco* (Culic.), in Mexico and Costa Rica, **1004**.

Orthoptera. — LIEBERMANN, *Rhipipteryx* (Tridactyl.), list, **1799**.

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Hymenoptera. — LECLERCQ, *Enoplolindenius, Paë* spp. (Spheg.), new to Ecuador, **1713**; *Anacrabro* (Spheg.), key, **1719**; ORFILA, *Stephanus*, key, **2136**; RICHARDS, O. W. & M. J., social wasps, **2434**; SCHUSTER, Mutillidae, V, **2653**; WILLINK, *Trimeria* (Masar.), key, **3224**.

Lepidoptera. — BOX, *Diatraea* (Pyral.), N. Venezuela, **331**; EVANS, Hesperiidae, pt. 1 Pyrrhopyginae, **867**; FERREIRA D'ALMEIDA, *Cithaerias* (Satyr.), catalogue, distribution list, **898**; *Mechanitis, Melinaea* (Danaid.), catalogue, **899**; FIELD, *Eurema* subgen. *Teriocolias* (Pier.), revision, **913**; HAYWARD, Hesperiinae, Argentina, **1251**; Rhopalocera (excl. Hesperiids), Argentina, synonymic catalogue, **1252**; *Adelpha* (Nymph.), Argentina, **1253**; Hesperiids, Argentina, pt. XXI, **1255**; HERRERA G., Nymphalids new to Chile, **1294**; JUSTINO, butterflies, Centr. Brazil, III, **1483**; LLANO, Bolivar, Argentina, list, I, **1825**; TRAVASSOS, Arctiids, XXIII–XXVI, **2967**.

Diptera.—CORTÉS P., *Enchomyia erythrocera* (Tach.), new to Chile, **633**; DEL PONTE, CASTRO & GARCÍA, *Aëdes, Psorophora* (Culic.), Argentina and neighbouring regions, keys, lists, **710**; FLOCH & ABONNENC, Anophelines (Culic.), Fr. Guiana, **928**; FLUKE, *Volucella scutellata* group (Syrph.), key, **934**; FREEMAN, Mycetophilidae, Patagonia and S. Chile, revision, **970**; FROTA-PESSOA & WHEELER, *Neotanygastrella* (Drosoph.), revision, **993**; HACK, Tabanidae, Argentina, revision, **1189**; HERING, Trypetids, Peru, **1288**; KRÖBER, Tabanids, Therevids, Conopids, Peru, **1624**; KUMM & CERQUEIRA, *Haemagogus* (Culic.), Brazil, **1643**; LANE, *Epicypta* (Mycetoph.), key, **1676**; LANE & WHITMAN, *Culex* (*Microculex*), S. of Amazon, revision, **1679**; LENGERSDORF, Lycoriids (Sciar.), Peru, **1754**; LEVÍ CASTILLO, *Haemagogus* (Culic.), **1786**, **1787**; Anophelines, taxonomic list, **1788**;

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Dermaptera. — KEVAN, Trinidad, **1535**.

Orthoptera. — LIEBERMANN, *Sinipta* (Acrid.), **1798**; *Rhipipteryx* (Tridactyl.), *Cratomelus* (Gryllacr.), list, **1799**.

ANTILLES.

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Hymenoptera. — KEMPF, *Hypocryptocerus* (Formic.), revision, Haiti, **1525**.

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Diptera. — CURRAN, *Mydas* (Mydaid.), *Proctacanthus* (Asil.), new spp., **655**; FLUKE, *Mesogramma* sp. n. (Syrph.), Cuba, **933**; HULL, *Mesogramma* sp. n. (Syrph.), Jamaica, **1372**; DE SOUZA LOPES, *Harpagopyga* sp. n. (Sarcoph.), Cuba, **2763**; WIRTH, *Leptoconops bequaerti* (Ceratop.), new records, **3238**; WHITE, Anophelinae, Caribbean, distribution, **3196**.

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Mallophaga. — TIMMERMANN, *Saemundssonia* sp. n., Antigua, **2930**; WERNECK, *Gliricola* sp. n., Bahamas, **3183**.

Orthoptera. — REHN, *Aspiduchus* (Blatt.), revision, **2398**.

III.—SYSTEMATIC.

GENERAL.

Key to injurious insects of shelterbelts, USSR, ARNOL'DI & others Opred. Faune SSSR **36** 1950 441 pp., 647 figs.

Citrus entomology in the Middle East, BODENHEIMER xii + 663 pp. 43 pls. 154 figs.

Classification of insects, BOURGOGNE Bull. Soc. ent. Mulhouse **1951** pp. 1–5.

Insects of Belg. Congo, BURGEON & BASILEWSKY Encycl. Congo belg. [?1951] pp. 181–258, 12 pls. (4 col.) many figs.

Insects and hygiene, BUSVINE xiv + 482 pp. 1 frontisp. 57 figs.

Recent changes in nomenclature of insects of economic and biological interest, I, CHADWICK Vict. Nat. **67** pp. 227–230.

Catalogue of Chinese insects, CHOU Ent. sinica **4** 1950 fasc. 1 Protura–Mantodea ; **5**[b] 1951 fasc. 3 Embiodea —Anoplura many figs.

Introduction to study of Entomology, GRANDI Introd. stud. ent. 1951 Vol. I (Apterygota, Exopterygota) 950 pp. 780 figs. ; Vol. II (Endopterygota) 1332 pp. 1198 figs.

Distribution of Trans-Adriatic spp., chiefly Coleoptera, GRIDELLI Mem. Biogeogr. adriat. **1** 1950 pp. 7–299, 52 figs.

Pests of cultivated plants in Indonesia, II, KALSHOVEN pp. [1+] 513–1065, 8 col. pls. 281 figs.

Destructive and useful insects. Their habits and control, METCALFE & FLINT 3rd ed. (by R. L. Metcalfe) xiv & 1071 pp. 584 figs.

Les insectes, I. Coléoptères, Orthoptères, Archiptères, Nevroptères, ROBERT 1946 209 [+3] pp. 34 pls. 74 figs.

Criticism of Weber's paper in 1950 on insects of Arctic Alaska, SAILER Ecology **32** pp. 729–730.

A course of general entomology. Introduction to the study of the structure and body of insects, SHVANVICH 1949 900 pp. 590 figs. [in Russian].

Insects of N. Carolina, 2nd suppl., WRAY 1950 pp. 1–39, 1 map.

COLEOPTERA.

Coleoptera of Auckland and Campbell Is., BROOKES Bull. Cape Exped. Ser. no. 5, 68 pp. 2 maps 22 figs.

Additions to list of Coleoptera of Cuba, BRUNER Mem. Soc. cubana Hist. nat. **20** pp. 81–88.

Classification of the famm. of British Coleoptera [contd.], CROWSON Ent. mon. Mag. **87** pp. 117–128, 147–156, 22 figs.

Coleoptera of the Radnaer Mts., Carpathians, CSIKI Acta biol. Acad. Sci. hung. **2** pp. 119–168.

Danish Coleoptera, pts. xiv & xv, HANSEN Danm. Fn. **56** 253 pp. 116 figs. ; **57** 274 pp. 131 figs.

Faunistic list of Coleoptera of Germany, Austria, and Czechoslovakia, I, II, HORION Verz. Käfer Mitteleurop. vii + 536 pp.

Observations on New Zealand Coleoptera, HUDSON Fragm. N.Z. Ent. [1951] pp. 38–55.

Halobiont and halophilous Coleoptera of Bulgarian Black Sea shores, KARNOZHITZKIĬ Trav. Stat. biol. marit. de Stalin (Bulgarie) no. 15 1949 pp. 1–66, 1 fig.

Coleoptera of Weser-Ems area, Germany, KERSTENS Beitr. Naturk. Niedersachs. **3** 1950 pp. 41–46.

Coleoptera collected in Djebel Sarro, S. Morocco, KOCHER Bull. Soc. Sci. nat. Maroc **29** pp. 299–310.

Coleoptera of E. Baltic Region, III, LACKSCHEWITZ KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 172–179.

Coleoptera of Canary Is., LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18 pp. 1–20, 6 figs.

Additions to Seabra's list of Portuguese Coleoptera, LUNA DE CARVALHO Mem. Estud. Mus. zool. Coimbra no. 203 pp. 1–24.

Reference list of Coleoptera types in Australian Museum, McKEOWN Rec. Aust. Mus. **22** 1948 pp. 95–139.

Notes on Swedish Coleoptera, VI, PALM Ent. Tidskr. **72** pp. 39–53, 3 figs.

Preliminary list of aquatic Coleoptera of Brecon, Radnor, and Monmouth, PEARCE J. Soc. Brit. Ent. **3** pp. 262–267.

Larvae of Nearctic Coleoptera, PETERSON Larv. Ins. pt. II pp. 2–218, 58 pls.

Coleoptera of Mauritania, PIC Bull. Inst. franç. Afr. noire **13** pp. 798–801.

Malacodermata, Heteromera and Phytophaga of the Swiss Mission to the Cameroons, 1947, Pic Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 pp. 217–222.

Water beetles of Libya, Schatzmayr Ann. Mus. libico Stor. nat. **3** 1942 pp. 195–225, 3 figs.

List of Coleoptera of Rieseberg area, Brunswick, Steinhausen Beitr. Naturk. Niedersachs. **3** 1950 pp. 70–73.

Coleoptera of Ösels, Estonia, von Szeliga-Mierzeyewski KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 180–230.

Beetles of N. Tyrol, Wörndle Schlern-Schriften no. 64 1950 388 pp. 2 pls. 1 map.

Cicindelidae.

Cicindelids of Serbia, Adamović Bull. Mus. Hist. nat. Belgrade (B) no. 3–4 1950 pp. 293–331, 12 figs.

Cicindelidae of the Swiss Mission to the Cameroons, 1947, Basilewsky Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p.196.

Cicindelids of Peru, Mandl Beitr. Fn Perus Bd. 1 1941 pp. 211–221 [all but 6 copies destroyed in the War and re-issued as Bd. 2 1951 pp. 204–214].

Amblycheila utahensis **sp. n.** Utah p. 47, Tanner Gt. Basin Nat. **11.**

Cicindela criticism of Rivalier's revision pp. 88–91, Antoine Rev. franç. Ent. **18.**—*C. coquereli* **abb. n.** *posterocaeca*, *pseudothéryi* p. 89; *luctuosa* **ab. n.** *spinuligera* p. 90 Morocco fig., Antoine Bull. Soc. Sci. nat. Maroc **30.**—*C. repanda* **subsp. n.** *novascotiae* Canada p. 1; *circumpicta* **subsp. n.** *salinae* Nebraska p. 3; *hamata* **subsp. n.** *monti* p. 4; *nevadica* **subsp. n.** *olmosa* p. 6; *macra* **subspp. n.** *fluviatilis* p. 8, *ampliata* p. 10 Texas; *californica erronea* **n. n.** for *viridicyanea* Vaur. nec Aud. & Br.; *lemniscata rebaptisata* **n. n.** for *rufipes* Vaur. nec Klug p. 12 fig., Vaurie Amer. Mus. Novit. no. 1479.

Carabidae.

Revision of Harpalinae of Africa and Madagascar, Basilewsky Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9** 333 pp. 6 pls. 191 figs.

Carabids of Cape Verde Is., Basilewsky Bull. Inst. franç. Afr. noire **13** pp. 1107–1109.

Carabidae of the Swiss Mission to the Cameroons, 1947, Basilewsky Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 pp. 196–208.

Distribution of Carabidae of Boulder Co., Colorado, Haubold Amer. Midl. Nat. **45** pp. 683–710, 6 figs.

Revision of Anchomenini from the Madagascar region (key to genn. p. 288), Jeannel Mém. Inst. sci. Madagascar **6A** pp. 285–351, 35 figs.

Additions to list of Carabids of S.E. Moravia, Krejčárek Acta Soc. ent. Čsl. **48** pp. 53–59.

Carabidae truncatipennae of Peru, Liebke Beitr. Fn Perus Bd. 1 1941 pp. 223–275, 14 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 215–266, 14 figs.].

Scaritidae of Portuguese Guinea, Luna de Carvalho An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 136–141.

Carabids of Moçambique, Luna de Carvalho An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 137–144, 3 figs.

Pterostichinae of the Swiss Mission to the Cameroons, 1947, Straneo Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 pp. 209–214, 9 figs.

Revision of Metiini (Antarctiini auct.), Straneo Rev. franç. Ent. **18** pp. 56–88, 34 figs.

Abacetus (*A.*) *villiersi* Dahomey p. 289, (*A.*) *rotundicollis* p. 294 (with **subsp. n.** *biimpressus* E. Africa), (*A.*) *brevisternus* p. 295, (*A.*) *subrotundatus*, (*A.*) *longelytratus* p. 296, (*A.*) *subnitens* p. 297 (with **subsp. n.** *similis* p. 298), (*Caricus*) *maréei* p. 299, (*C.*) *xanthopoides* p. 301, (*Distrigodes*) *puncticollis* p. 302, (*D.*) *mediopunctatus* p. 304, (*Abacetillus*) *leleupi* p. 305, (*A.*) *subflavipes*, (*Astygis*) *trivialoides* p. 307 **spp. n.**; (*A.*) *minusculus* **subsp. n.** *auratoides* p. 309 Belg. Congo; (s. str.) *micans* **n. n.** for *reflexicollis* Stran. nec Fairm.

p. 297; key to spp. of *wakefieldi* group p. 292; (*Caricus*) *nanoides* Stran. a var. of *nanus* Chaud. p. 302 figs., STRANEO Bull. Ann. Soc. ent. Belg. **87.**—*A. pubescens* Dej.(=*palustris* Pér.) p. 419; *dilucidus* P. (=*propinquus* P.) p. 420, STRANEO Ann. Transv. Mus. **21.**—*A.* (*Abacetillus*) *antoinei* **sp. n.** Moroccan Sahara p. 78 fig., STRANEO C.R. Soc. Sci. nat. Maroc no. 6.—*A. perater*, (*Abacetillus*) *monardi* **spp. n.** Cameroons p. 388, STRANEO Rev. suisse Zool. **58.**—*A.* (*A.*) *perater* p. 212, (*Abacetillus*) *monardi* p. 213 further descriptions; *rhodesianus* **sp. n.** N.W. Rhodesia p. 213 (note) figs., STRANEO Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Acupalpus key to African spp. p. 234; *latiusculus* Ivory Coast p. 239, *leleupi* p. 243, *kundelunguensis* p. 244 Belg. Congo, *usambaranus* Tanganyika p. 245 **spp. n.**; *egenus* Pér. (=*alacer* P.) p. 246 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Agonobembix colpodoides (with **subsp. n.** *distinctus*) **sp. n.** Madagascar p. 294 figs., JEANNEL Mém. Inst. sci. Madagascar **6A.**

Agonocolpodes revision of spp. of Madagascar region pp. 330–350, keys p. 330; (*Piezotelus*, *Apocolpodes* **subgenn. n.** p. 331); (s. str.) *cachani*, (s. str.) *micheli* p. 332, (*P.*) *nitens* p. 338, (*Ectobothrus*) *episcopalis* p. 341, (*A.*) *angulosus* p. 347, (*A.*) *hylochorus* p. 348 **spp. n.**; (*P.*) *vagus* **subsp. n.** *acutispina* p. 337; (*P.*) *gemmula* **subsp. n.** *minutus* p. 338; (*A.*) *tetragonus* **subspp. n.** *tsaratananae*, *separatus*, *exiguus* p. 346 Madagascar; *scitus* Jeann. valid sp. not subsp. of *Neocolpodes perrieri* All. p. 337 figs., JEANNEL t.c.

Agonorites **gen. n.** for *Sophroferonia anchomenina* All. (type) p. 302, *S. ankaratrae* Jeann. p. 303, *Liagonum microphthalmus* J. p. 304; key to spp.; *vakoanae* **sp. n.** Madagascar p. 303 figs., JEANNEL t.c.

Agonum (*Tanystola*) *charactum* **sp. n.** Oregon p. 117, HATCH Bull. Brooklyn ent. Soc. **46.**—*A. leleupi* **sp. n.** Belg. Congo p. 287 fig., BASILEWSKY Rev. Zool. Bot. afr. **44.**—*A.* subgen. *Neobatenus* see *Megalonychus*; *camerunicum* see *Pseudobatenus*; *lebisi* see *Euleptus*.

Agra boliviana p. 253 [245], *caligata* p. 254 [245], *clavata* p. 255 [246], *crassipes* p. 256 [247], *dentipennis* p. 256 [248], *exsculpta* p. 257 [248], *fallax* p. 257 [249], *famula* p. 258 [249], *felix* p. 258 [250], *glauca* p. 259 [250], *humboldti* p. 260 [251], *ketschuana* p. 252 [260], *maya* p. 261 [252], *mulieris* p. 261 [253], *nigra* p. 262 [253], *pertzeli* p. 262 [254], *peruana* p. 263 [254], *plantipedis*, *punctulata* p. 264 [255], *regina* p. 265 [256], *steinbachi* p. 266 [257], *striola* p. 266 [258], *titschacki* p. 267 [258], *variipes* p. 267 [259], *venatrix* p. 268 [259] **spp. n.** Peru figs., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Amara (*Zezea*) *berbera*, (*A.*) *thisbe* **spp. n.** Morocco p. 311, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**—*A.* (*Zezea*) characters of some spp. pp. 1–9; *gaubili* **sp. n.** (also Italy) (with **ff. n.** *ferruginipes*, *viridinitens* p. 7) France p. 5 figs., FASSATI Acta ent. Mus. nat. Pragae **26** 1949 no. 361.—*A.* (*Leiromorpha*) *boissyi* **sp. n.** France p. 145, COLAS Bull. Soc. ent. Fr. **55.**—*A.* (*Celia*) *canariensis* **sp. n.** Canary Is. p. 2, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Amblystomus Erichs. (=*Entomorrhinus* Jeann.) p. 275, key to African spp. p. 277; *metrius* Senegal p. 289, *eburneus* Ivory Coast, *rutshuruanus* p. 300, *alberti* p. 305, *dispar* p. 307 Senegal, Fr. Sudan **spp. n.**; *aphelus* **subsp. n.** *straneoi* Eritrea p. 293; *lepineyi* All. (=*notatus* Müll.) p. 303 figs., BASILEWSKY Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **9.**

Anchonoderus montanus p. 244 [236], *rödingeri* p. 245 [237] **spp. n.** Peru, LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Anilloferonia rothi **sp. n.** Oregon p. 117, HATCH Bull. Brooklyn ent. Soc. **46.**

Anoplogenius key to African spp. p. 124; *mactus* **sp. n.** Mauritania

* Bd. 2 1951 is a re-issue of Bd. 1 1941, of which all but 6 copies were destroyed in the War. The pagination of Bd. 1 is followed by that of Bd. 2 in square brackets.

p. 133 ; *angustatus* Chaud. (=*amoenulus* Pér.) p. 134 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Antarctia see *Metius* ; *A. lata* see *Migadops* ; *complanata* see *Antarctonomus* ; *puncticollis, subamaroides* see *Feroniola* ; *laevigata* see *Antarctiola.*

Antarctiola **gen. n.** p. 86, *laevis* **sp. n.** Patagonia (type) p. 87 ; *laevigata* Putz. from *Antarctia* p. 88, STRANEO Rev. franç. Ent. **18.**

Antarctonomus complanata Blanch. from *Antarctia* p. 58, STRANEO t.c.

Anthracus key to African spp. p. 250 ; *angusticollis* Pér. (=*stenothorax* Kuntz.) p. 251 ; *cordiger, pallidus* (also Belg. Congo) **spp. n.** Senegal p. 252 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Antireicheia **subgen. n.** (type *promontorii* Pér.) see *Reicheia.*

Apocolpodes **subgen. n.** (type *tetragonus* All.) see *Agonocolpodes.*

Apristus hololeucus **sp. n.** Canary Is. p. 2, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Arhytinus lieftincki **sp. n.** Java p. 125, LOUWERENS Treubia **21.**

Astygis natalensis Chaud. (=*delagoensis* Pér.) p. 420 ; *aenescens* P. valid sp. not synonym of *chalcites* P. ; *pygmaeus* P. (=*mashunus* P.) p. 421 ; *confinis* **ab. n.** *laetus* S. Africa p. 422, STRANEO Ann. Transv. Mus. **21.**

Batoscelis key to African spp. p. 263 ; *leontovitchi* **sp. n.** Belg. Congo p. 264 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Bembidion systematic and distributional notes pp. 102–105 figs., MEYER Ent. Bl. **45–46.**—*B.* systematic and distributional notes on some spp. from Siebenbürgen pp. 119–121, NETOLITZKY Ent. Bl. **45–46.**—*B.* (*Peryphus*) *yanoi* p. 108, (*P.*) *fassatii*, (*P.*) *darligtonicum* [sic], (? *Aureoplataphus*) *balthasari* p. 109, (*P.*) *hoberlandti*, (*P.*) *osakaensis* p. 110, (*P.*) *sapporense*, (*Pseudolimneum*) *chuji* p. 111 **spp. n.** Japan, JEDLIČKA Acta Soc. ent. Čsl. **48.**—*B.* (*Chrysobracteon*) *grahami* Br. Columbia p. 114, (*Notaphus*) *tencuti* Oregon p. 115 **spp. n.,** HATCH Bull. Brooklyn ent. Soc. **46.**

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Bradycellus (*Triliarthrus*) *fenderi* **sp. n.** Oregon p. 120, HATCH Bull. Brooklyn ent. Soc. **46.**

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Calathosoma rubromarginatum Blanch. (=*Loxomerus huttoni* Broun) p. 22 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

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Callistoderus longeantennatus **sp. n.** Fr. Guinea p. 277, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

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Ceutosphodrus villardi further description p. 312, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

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Chlaenius kaszabi E. Africa p. 133, *székessyi* Cameroons p. 134, *horváthi* Uganda p. 135, *pongráczi*, (*Callistoides*) *csikii* p. 136 **spp. n.**; *flaviguttatus* **ab. n.** *immaculipennis* New Guinea; *conformis* **var. n.** *jokoanus* Cameroons p. 134, JEDLIČKA Ann. hist.-nat. Mus. hung. (N.S.) **1.**—*C.* (*Platychlaenius*) *uzungwensis* **sp. n.** Tanganyika p. 45 fig., BASILEWSKY Psyche **58.**—*C. drescheri* **sp. n.** Borneo p. 126, LOUWERENS Treubia **21.**

Clivina revision of Oriental spp. pp. 16–32; *hoberlandti* Sumatra, *saigonica* Cochin China, Tonkin (with **subsp. n.** *drescheri* Java, Borneo, Celebes), *balfourbrownei* p. 19, *obenbergeri* p. 20, *championi*, *pfefferi* India, *coomani* Tonkin, Annam, Indo-China p. 21, *birmanica* Burma, *zebi* Borneo, Sumatra, Sumbawa, Philippines, Singapore, *bänningeri* Philippines, Sumatra, Java p. 22 **spp. n.**; *tranquebarica* Bon. (=*cordicollis* Mots., *foveicolis* Putz., *scuticeps* Bat.); *fulvaster* Mots. (=*brunnescens* Mots., *rufipes* Mots.); *convexicollis* Putz. (=*ateuches* Andr., *obesicollis* Putz.); *mordax* Putz. a distinct sp. and not a syn. of *tranquebarica* Bon.; *marginicollis* Putz. a subsp. of *mordax*, not a syn. of *tranquebarica* p. 23; *angularis* Putz. a distinct sp. and not a syn. of *lobata* Bon.; *laeviceps* Bat. a subsp. not a syn. of *lobata* p. 24; *stricta* Putz. (=*humeralis* Putz. 1866 nec 1863) p. 25; *kapuri* India, *depressa* Formosa, *subdepressa* Philippines, Sarawak p. 26, *biroi* p. 28, *guineensis*, *csikii*, *schaubergeri* p. 29, *székessyi*, *netolitzkyi* p. 30, *komáreki* p. 31 New Guinea, *yanoi* Riu-Kiu Is., *kaszabi* Borneo p. 29 **spp. n.**; *pluridentata* Putz. a distinct sp., not a syn. of *bengalensis* p. 26; *wallacei* **subsp. n.** *philippinensis* Philippines, Formosa p. 27, KULT Acta Soc. ent. Čsl. **48.**—*C. memnonia*, *assamensis*, *costata* see *Pseudoclivina*.

Cophosomorpha recticollis corrected figure; *rufina* **var. n.** *longula* p. 422; *loveridgei* **sp. n.** Tanganyika p. 423, STRANEO Ann. Transv. Mus. **21.**

Coptodera pertzeli p. 250 [242], *peruana* [243], *waytkowskii* [252] p. 243 **spp. n.** Peru fig., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Craspedophorus bouvieri **subsp. n.** *dux*; *strachani* **subsp. n.** *monardi* Cameroons p. 385, BASILEWSKY Rev. suisse Zool. **58.**—*C. bouvieri* subsp. *dux* p. 205, *strachani* subsp. *monardi* p. 206 further descriptions, BASILEWSKY Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Cratognathus Dej. (=*Eucephalus* Cast., *Daptomorphus* Chaud., *Cyphogenius* Chaud., *Micracinopus* Csy.) p. 68, key to African spp. p. 70 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Cynthidia key; *majorina* **sp. n.** Brazil, Paraguay p. 17 fig., STRANEO Psyche **58.**

Cyphogenius see *Cratognathus*.

Daptomorphus see *Cratognathus*.

Dicrodontus separandus **sp. n.** Canary Is. p. 2, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Dolichoctis depokensis **sp. n.** Java p. 131 fig., LOUWERENS Treubia **21.**

Duvalius exaratus revision of races pp. 146–151, key p. 147 fig., SCHWEIGER Ent. NachrBl. öst. schweiz. Ent. **3.**

Egadroma key to African spp. p. 146; *metrium* Fr. Guinea, Belg. Congo, Cameroons, Uganda p. 154, *vandenbulckei* Belg. Congo p. 157, *planicostatum* Cameroons, Fr. Congo p. 182, *nigerianum* Nigeria p. 204, *silvestrii* Fr. Guinea p. 206 **spp. n.**; *irinorufum* **subsp. n.** *occidentale* Fr. Congo p. 160; *capense* Pér. (=*fallax* P.) p. 171; *relucens* Erichs. (=*mitis* Laf., *subrelucens* Woll., *brunneus* Kolbe) p. 173; *germanum* Chaud. (=*subcyaneus* Mj., *piceolum* Müll.) p. 175; *columbinum* Erichs. (=*angolense* Qued.) p. 179; *plagiferum* Klug (=*vittiger* Kl.); *p.* var. *elegantulum* Pér. (=*obscuripes* Müll.) p. 187; *scapulare* Dej. (=*humerale* Fairm., *laeviceps* Kolbe, *decoratum* Pér.) p. 190; *natalicum* Pér. (=*mathiauxi* Jeann.) p. 202 figs., Basilewsky Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Elaphrus (**subgen. n.** *Neoelaphrus*) included spp. p. 113, Hatch Bull. Brooklyn ent. Soc. **46.**

Entomorrhinus see *Amblystomus.*

Epigraphus arcuatocollis **subsp. n.** *major* Fr. Guinea p. 279, Basilewsky Bull. Ann. Soc. ent. Belg. **87.**

Epomis loveridgei **sp. n.** Tanganyika p. 43 fig., Basilewsky Psyche **58.**

Erinnys see *Helluomorpha.*

Eucephalus see *Cratognathus.*

Euleptus lebisi Jeann. from *Agonum* p. 295 figs., Jeannel Mém. Inst. sci. Madagascar **6A.**

Eurycarabus fezzanus Lap. a form of *favieri* p. 88, Antoine Bull. Soc. Sci. nat. Maroc **30.**

Feronia (*Cryobius*) *bryanti* **sp. n.** N.W. Canada p. 27, Van Dyke Pan-Pacif. Ent. **27.**

Feroniascus **gen. n.** for *Neomegalonychus catalai* Jeann. (type) p. 299; *vadoni* p. 300, *chlaenioides* p. 301 **spp. n.** Madagascar figs., Jeannel Mém. Inst. sci. Madagascar **6A.**

Feroniola puncticollis Putz., *subamaroides* Rouss. from *Antarctia* p. 58, Straneo Rev. franç. Ent. **18.**

Formosiella **gen. n.** p. 112, *brunnea* **sp. n.** Formosa p. 113, Jedlička Acta Soc. ent. Čsl. **48.**

Haplocolpodes **subgen. n.** (type *perrieri* All.) see *Neocolpodes.*

Haptoderus amaroides **subsp. n.** *navaricus* France p. 146, Colas Bull. Soc. ent. Fr. **55.**

Harpalodes **gen. n.** for *Harpalus xanthorhaphus* Wied. p. 55 fig., Basilewsky Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Harpalomorphus Pér. (=*Raphalus* Csy.) p. 111; *capicola* P. (=*convergens* C.) p. 112 figs., Basilewsky t.c.

Harpalus key to African spp. p. 12; *impressus* Roth (=*hamasiensis* Müll.) p. 19; *agnatus* Reiche (=*asphaltinus* Roth, *germanus* Chaud.) p. 27; *fuscoaeneus* Dej. (=*nanus* Dej., *precarius* Pér.) p. 30; *rufocinctus* Chaud. (=*betshuanus* Obst) p. 36; *fulvicornis* Thnb. (=*impunctus* Wied.) p. 39; *dubius* Boh. (=*parvulus* Pér., *péringueyi* Kuntz.) p. 45 figs., Basilewsky t.c.—*H. neglectus* **subsp. n.** *mayeti* France p. 160, Verdier, Quézel & Rioux Entomologiste **7**; Verdier & Quézel Vie et Milieu **2** p. 72.—*H. xanthorhaphus* see *Harpalodes.*

Helluomorpha Cast. (=*Herinnis* Thoms., *Erinnys* Gemm. & Har.) scope p. 135, Ball Bull. Brooklyn ent. Soc. **46.**—*H. texana* see *Helluomorphoides.*

Helluomorphoides **gen. n.** for *Helluomorpha texana* Lec. (type) & other spp. p. 136, Ball Bull. Brooklyn ent. Soc. **46.**

Herinnis see *Helluomorpha.*

Hippolaetis rufus Cast. (=*lutea* Westw., *africana* Schauf.) p. 259 figs., Basilewsky Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Holcoderus quadrifoveatus **sp. n.** Java p. 129 fig., Louwerens Treubia **21.**

Hygrocarabus melancholicus **f. n.** *mussardi* Morocco p. 87, Antoine Bull. Soc. Sci. nat. Maroc **30.**

Hyphaereon celebensis **sp. n.** Celebes p. 119, Louwerens Treubia **21.**

Hystrichopus (*Assotatus*) *nimbanus* **sp. n.** Fr. Guinea p. 281, Basilewsky Bull. Ann. Soc. ent. Belg. **87.**

Kenyacus nyakasibanus, leleupi p. 290, *minor* p. 291 **spp. n.** Belg. Congo, Basilewsky Rev. Zool. Bot afr. **44.**

Laemostenus schreibersi **subspp. n.** *croaticus* Croatia, *tridentinus, ladinicus* Italy p. 106, MÜLLER Mem. Soc. ent. ital. **30.**

Laemosthenes (*Pristonychus*) *cadilhaci* **sp. n.** p. 91 (with **ab. n.** *subarmatus* p. 92) ; (*Sphodroides*) *atlanticus* **f. n.** *macrops* p. 93 Morocco, ANTOINE Bull. Soc. Sci. nat. Maroc **30.**

Lebia mushai, arisana, miwai p. 114, *stěpáneki* p. 116 Formosa, *fassatii* p. 115, *roubali, šusterai* Formosa, China, *sapporensis, kavani, fárai* Japan p. 116 **spp. n.** figs., JEDLIČKA Acta Soc. ent. Čsl. **48.**—*L. diehli, silvatica* p. 247 [239], *sculpticollis* p. 248 [240] **spp. n.** Peru fig., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*—*L. leleupi* **sp. n.** Belg. Congo p. 293, BASILEWSKY Rev. Zool. Bot. afr. **44.**

Leleupidia **gen. n.** (Zuphiinae) p. 176, *luvubuana* **sp. n.** Belg. Congo p. 178 figs., BASILEWSKY t.c.—*L.* key to spp. p. 20 ; *emerita* Kivu p. 21, *ruandana* Ruanda p. 22, (*Paraleleupidia* **subgen. n.**) *cribrata* Tanganyika p. 23 **spp. n.** figs., BASILEWSKY op. cit. **45.**

Leptochlaenius varians **subsp. n.** *nimbanus* Fr. Guinea p. 277, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

Lia toroana **sp. n.** Peru p. 248 [240] fig., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Liagonidium **gen. n.** for *Liagonum coquereli* All. (type), *L. antankara* A., *L. betsileo* A., *L. sexpunctatum* Dej., *L. arecarum* Coq. ; key to spp.; *monticola* **sp. n.** Madagascar p. 298 figs., JEANNEL Mém. Inst. sci. Madagascar **6A.**

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Limnastis gaudini **sp. n.** Teneriffe p. 825 figs., JEANNEL Mem. Soc. españ. Hist. nat. **15** 1929.

Loxandrus minimus **sp. n.** Colombia, Canal Zone p. 4 fig., STRANEO Psyche **58.**

Loxomerus (*L.*) *largus* **sp. n.** Auckland I. p. 19 fig., BROOKES Bull. Cape Exped. Ser. no. 5.—*L. huttoni* see *Calathosoma rubromarginatum.*

Lymnastis jeanneli p. 283, *meersmanae* p. 285 **spp. n.** Belg. Congo figs., BASILEWSKY Rev. Zool. Bot. afr. **44.**—*L. herlanti* **sp. n.** Belg. Congo p. 85 fig., BASILEWSKY op. cit. **45.**

Mallopelmus (*Trichillinus*) *terricola* **sp. n.** Belg. Congo p. 288 fig., STRANEO Bull. Ann. Soc. ent. Belg. **87.**—*M. subcongoensis* **sp. n.** Belg. Congo p. 241 figs., STRANEO Rev. Zool. Bot. afr. **44.**

Marsyas minutus **sp. n.** Paraguay p. 15 fig., STRANEO Psyche **58.**

Megalonychus Chaud. (=*Agonum* subgen. *Neobatenus* Jeann.) p. 290 ; *nidicola* **sp. n.** Madagascar p. 291 figs., JEANNEL Mém. Inst. sci. Madagascar **6A.**

Melanchiton (*Melaniridius*) *elongatus* **sp. n.** Cameroons p. 389, STRANEO Rev. suisse Zool. **58.**—*M. elongatus* further description p. 214 figs., STRANEO Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Metagonum colasi Tanganyika p. 34, *elgeyoense* [sic] Kenya p. 35 **spp. n.**, BASILEWSKY Rev. franç. Ent. **18.**—*M. subaeneum* **subsp. n.** *nimbanum* Fr. Guinea p. 274, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

Metaxenus leleupi **sp. n.** Belg. Congo p. 312, STRANEO Bull. Ann. Soc. ent. Belg. **87.**—*M. obesulus* **var. n.** *cameronus* p. 388 ; *minor* **sp. n.** p. 389 Cameroons, STRANEO Rev. suisse Zool. **58.**—*M. obesulus* **sp. n.** Fr. Congo p. 213 (note) ; *minor* further description p. 214 figs., STRANEO Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Metius Curt. (=*Antarctia* Dej. (type considered to be *carnifex* Dej.), *Tachycelia* Gistl) p. 56, characters p. 59, key p. 62 ; *flavipes* Dej. (=*antiqua* Mots.) p. 63 ; *chilensis* Dej. (=*coquimbana* Sol.) p. 61 ; *blandus* Dej. (=*quadricollis* Sol., *grandipennis* Fairm.) p. 68 ; *annulicornis* Curt. (=*falsicolor* Fairm.) p. 69 ; *malachiticus* Dej. (=*nitens* Putz., *nitida* Guér., *anodon* Fairm.) p. 73 (with **subsp. n.** *septentrionalis*

* See footnote on p. 233.

Chile); *andicola* Dej. (=*leucoscelis* Putz.) p. 74; *latemarginatus* p. 77, *silvestrii* p. 80, *brunnescens*, *robustus* p. 81, *rotundatus*, *rotundicollis* p. 82 Argentina, *subcoeruleus* Chile p. 77, *peruvianus*, *cordatulus* p. 78, *striolatus* p. 81, *titschacki* p. 83, *obtusus* p. 85 Peru, *confusus*, *subfoveolatus* p. 79, *constrictus* p. 84 Brazil, *ovalipennis* Juan Fernandez p. 80, *bolivianus* Bolivia p. 83, *flavipleuris* Terre de Feu p. 85 **spp. n.** figs., STRANEO Rev. franç. Ent. **18.**

Micracinopus see *Cratognathus*.

Microdipnus kahuzianus **sp. n.** Belg. Congo p. 87 fig., BASILEWSKY Rev. Zool. Bot. afr. **45.**

Microlesthes (*Mesolesthes*) *pueli* Ant. (=*maroccanus* Schatzm.) p. 313, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

Migadops lata Guér. from *Antarctia* p. 58, STRANEO Rev. franç. Ent. **18.**

Mimodromius altus **sp. n.** Peru p. 252 [244], LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Nebria (*N.*) *reymondi* **sp. n.** Morocco p. 88, ANTOINE Bull. Soc. Sci. nat. Maroc **30.**

Nematotarsus titschacki **sp. n.** Peru p. 247 [238] fig., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Neobatenus see *Megalonychus*.

Neocolpodes revision of spp. of Madagascar region pp. 305–330, keys p. 305; (*Haplocolpodes* p. 305, *Opisthopiesis* p. 306 **subgenn. n.**); (*H.*) *silvicola*, (*H.*) *erythropus* p. 308, (*H.*) *plumbeus* p. 309, (*Cymenopterus*) *brachyderus* p. 314, (*C.*) *pachys* p. 315, (*O.*) *afrellus*, (*O.*) *arcticollis* p. 318, (*O.*) *monticola* p. 319, (*N.*) *viridicollis* p. 325, (*N.*) *purpurascens* p. 327 **spp. n.**; (*H.*) *laticollis* Jeann. from *Liagonum* p. 307; (*H.*) *onivensis* **subsp. n.** *humeralis* p. 308; (*Acidotelus*) *alluaudianus* **subsp. n.** *renaudianus* p. 321; (*N.*) *aeneicollis* **subsp. n.** *depressus* p. 325; (*N.*) *sinopis* **subsp. n.** *cuneatus* p. 327 Madagascar figs., JEANNEL Mém. Inst. sci. Madagascar **6A.**—*N. perrieri scitus* see *Agonocolpodes*.

Neoelaphrus **subgen. n.** (type *uliginosus* F.) see *Elaphrus*.

Neomegalonychus lamottei **sp. n.** Fr. Guinea, Ivory Coast p. 274, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**—*N. catalai* see *Feroniascus*.

Nipponotrechus **gen. n.** p. 85, (*N.*) *ishikawai* (type) p. 86, (*Yasutakea* **subgen. n.**) *uozumii* p. 87 **spp. n.** Japan figs., UÉNO Ent. Rev. Japan **5.**

Notaphus (*Omotaphus*) *kivuanus* **sp. n.** Belg. Congo p. 281 fig., BASILEWSKY Rev. Zool. Bot. afr. **44.**

Notiophilus quadripunctatus **ab. n.** *bisquadripunctatus* Morocco p. 89, ANTOINE Bull. Soc. Sci. nat. Maroc **30.**

Omostropus palangoides Reiche (= *subcylindricus* R. nec Dej., *cratognathoides* Gerst., *angustus* Pér., *consanguineus* P., *egenus* P., *boranus* Müll.) p. 58 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9.**

Onotokiba guineensis **sp. n.** Fr. Guinea p. 275, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

Oodes walshae **sp. n.** Borneo p. 127, LOUWERENS Treubia **21.**

Oodinkosa massarti Burg. from *Celioschesis* p. 236; *crassula* characters; *punctulata* **sp. n.** Belg. Congo p. 237, STRANEO Rev. Zool. Bot. afr. **44.**

Oopterus aucklandicus **sp. n.** Auckland I. p. 23 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

Opisthopiesis **subgen. n.** (type *montis* All.) see *Neocolpodes*.

Orophicus vinsoni **sp. n.** Mauritius p. 351 figs., JEANNEL Mém. Inst. sci. Madagascar **6A.**

Orthomus spp. of Atlantic Is. pp. 277–289 maps., MATEU Eos **27.**

Oxycentropsis javanus p. 120, *minor* p. 121, *piceus* (also Celebes) p. 122 **spp. n.** Java figs., LOUWERENS Treubia **21.**

Oxycrepis parvula **sp. n.** Colombia p. 3, STRANEO Psyche **58.**

Oxygonium **gen. n.** (Anchomeninae) p. 272, *acutangulum* **sp. n.** Fr. Guinea p. 273, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

Pachyabaris **gen. n.** p. 10, *darlingtoni* p. 12, *subcordata*, *striolata* p. 13,

* See footnote on p. 233.

minuta, laevis p. 14, *montanus* p. 15 **spp. n.** Colombia figs., STRANEO Psyche **58.**

Pachydinodes raffrayi **subsp. n.** *darlingtoni* Port. E. Africa p. 42, BASILEWSKY Psyche **58.**

Pachyferonia **gen. n.** p. 292, *quadricollis* **sp. n.** Madagascar p. 293 fig., JEANNEL Mém. Inst. sci. Madagascar **6A.**

Paraleleupidia **subgen. n.** (type *cribrata* sp. n.) see *Leleupidia.*

Parapedius mediatlantis **sp. n.** Morocco p. 91, ANTOINE Bull. Soc. Sci. nat. Maroc **30.**

Penetretus temporalis **ab. n.** *fallax* Morocco p. 90, ANTOINE t.c.

Pentagonica roedingeri **sp. n.** Peru p. 253 [244] fig., LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Perigona obscuriceps p. 117, *picipennis* p. 118 **spp. n.** Java, LOUWERENS Treubia **21.**—*P.* (*P.*) *microphthalma* **sp. n.** Venezuela p. 63, MARCUZZI Boll. Soc. ent. ital. **81.**

Perigonillus leleupi **sp. n.** Belg. Congo p. 88, BASILEWSKY Rev. Zool. Bot. afr. **45.**

Perileptus leleupi **sp. n.** Belg. Congo p. 286, BASILEWSKY op. cit. **44.**

Peryphus (*Nepha*) *jeanneli* **sp. n.** France p. 91 figs., DEWAILLY Rev. franç. Ent. **18.**

Phaedrusium **gen. n.** p. 249 [240], *suturalis* (type) p. 249 [241], *titschacki* p. 250 [242] **spp. n.** Peru, LIEBKE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Philorhizus luvubuanus **sp. n.** Belg. Congo p. 292, BASILEWSKY Rev. Zool. Bot. afr. **44.**

Piezotelus **subgen. n.** (type *andreae* All.) see *Agonocolpodes.*

Pseudobatenus **gen. n.** for *Agonum camerunicum* Burg. (type) p. 31; *longicollis* **sp. n.** Cameroons p. 33, BASILEWSKY Rev. franç. Ent. **18.**

Pseudoclivina memnonia Dej., *assamensis* Putz., *costata* Andr. from *Clivina* p. 18, KULT Acta Soc. ent. Čsl. **48.**

Pterostichus (*Hypherpes*) *setosus* **sp. n.** Oregon p. 116, HATCH Bull. Brooklyn ent. Soc. **46.**—*P. persimilis* **sp. n.** Canary Is. p. 2, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.—*P. marsyasicus* Brazil p. 166, (*Meraulax*) *loxandroides* Argentina p. 168 **spp. n.** figs., STRANEO Rev. franç. Ent. **18.**

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Raphalus see *Harpalomorphus.*

Reicheia (*Antireicheia* **subgen. n.** p. 267) *jeanneli* **sp. n.** Belg. Congo p. 269 figs., BASILEWSKY Rev. Zool. Bot. afr. **44.**—*R.* key to spp. of Belg. Congo p. 135; (*Antireicheia*) *debruynei* p. 136, (*A.*) *vandenberghei* p. 137, (*A.*) *marginodentata* p. 138, (*A.*) *harroyi*, (*A.*) *kahuziana* p. 140, (*R.*) *brieni*, (*R.*) *leleupi* **spp. n.** Belg. Congo, BASILEWSKY op. cit. **45.**

Rembus oregona **sp. n.** Oregon p. 119, HATCH Bull. Brooklyn ent. Soc. **46.**

Rhysotrachelus monardi **sp. n.** Cameroons p. 383, BASILEWSKY Rev. suisse Zool. **58.**—*R. monardi* further description p. 200, BASILEWSKY Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Scarites (*S.*) *tenebricosus* **ab. n.** *cataracta* Port. Guinea p. 139 fig., LUNA DE CARVALHO An. Junta Invest. colon. Lisboa (Zool.) **4** 1949.

Sierrobius **gen. n.** p. 5, key p. 6, *smaragdinus* (type) p. 7, *bistriatus, laevigatus* p. 8, *uniformis* p. 9, *parvulus* p. 10 **spp. n.** Colombia figs., STRANEO Psyche **58.**

Simous obscurus Java, *viridissimus* Borneo **spp. n.** p. 128, LOUWERENS Treubia **21.**

Singilis bedeli **ab. n.** *kocheri* Morocco p. 313, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

Sofota **gen. n.**, *chuji* **sp. n.** Formosa p. 112, JEDLIČKA Acta Soc. ent. Čsl. **48.**

Sophroferonia anchomenina, ankaratrae see *Agonorites.*

Sphaerodes camerunus **sp. n.** Cameroons p. 384, BASILEWSKY Rev. suisse Zool. **58.**—*S. camerunus* further description p. 204, BASILEWSKY Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

* See footnote on p. 233.

Stenocallida alticola p. 279, *lamottei* p. 280 **spp. n.** Fr. Guinea, BASILEWSKY Bull. Ann. Soc. ent. Belg. **87.**

Stenolophidius key to African spp. p. 213 ; *leleupi* p. 215, *leroyi* p. 218, *seydeli* p. 220 **spp. n.** Belg. Congo ; *pallidus* Boh. (=*modestus* Müll.) p. 215 figs., BASILEWSKY Ann. Mus. Congo Belge (Sér. 8°) Sci. zool. **9.**

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Paussidae of Portuguese Guinea, LUNA DE CARVALHO An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 133–135.

Catalogue of Paussidae, LUNA DE CARVALHO Mem. Estud. Mus. Zool. Coimbra no. 207, 51 pp. 2 pls. 1 fig.

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Dytiscids of Greenland collected by French Polar Expedition, 1949, GUIGNOT Bull. Soc. ent. Mulhouse **1951** pp. 12–13.

* See footnote on p. 233.

Dytiscidae of the Swiss Mission to the Cameroons, 1947, GUIGNOT Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p. 215.

Nevada Dytiscidae, LA RIVERS Amer. Midl. Nat. **45** pp. 392–406.

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British Gyrinidae, Balfour-Browne Brit. water beetles, II 1950 pp. 316–371 illus.

Gyrinidae of S.W. Arabia Expedition, Balfour-Browne Exped. S.W. Arabia 1937–8 **1** pp. 195–196.

Gyrinids of Angola, Brinck Publ. cult. Comp. Diam. Angola no. 11 pp. 97–111, 2 figs.

Gyrinidae of the Swiss Mission to the Cameroons, 1947, Guignot Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p. 215.

Keys to and distribution of Madagascan Gyrinidae, Legros Nat. malgache **3** pp. 117–123, 8 figs.

Systematic notes on Gyrinids IV, Mouchamps Bull. Ann. Soc. ent. Belg. **87** pp. 229–234.

Preliminary list of Gyrinids of Iowa, Schaffner & Millspaugh Proc. Iowa Acad. Sci. **57** pp. 531–532.

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Staphylinidae.

Staphylinids of Peru, Bernhauer Beitr. Fn Perus Bd. 1 1941 pp. 277–293 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 267–282].

Staphylinidae of Armstrong College Expedition to Siwa Oasis, Cameron Bull. Soc. Fouad 1er Ent. **35** pp. 279–284.

Some Staphylinids from Yol, Punjab, Cerruti Riv. Biol. colon. **10** pp. 15–22, 2 figs.

Acanthosipalia **subgen. n.** (type *praefixa* Norm.) see *Sipalia.*

Aleochara peruviana **sp. n.** Peru p. 292 [282], Bernhauer Beitr. Fn Perus Bd. 1 1951 [Bd. 2 1951].*

Amischa sexes of Norwegian spp. discussed p. 219 fig., Strand Norsk ent. Tidsskr. **8.**

Ancyrophorus (*A.*) *lucifugus* Belgium p. 2, (*A.*) *gracilis* p. 6, (*A.*) *gigolettoi* p. 10 (corrected to *grigolettoi* in Bull. Ann. Soc. ent. Belg. **87** p. 251) Italy **spp. n.** figs., Fagel Bull. Inst. R. Sci. nat. Belg. **27** no. 22.—*A. filum* discussed p. 1; *scheerpeltzi* **sp. n.** Prague p. 5 figs., Fagel op. cit. **27** no. 46.

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Astenus vilhenai, rufotestaceus **spp. n.**; *abyssinus* **var. n.** *vittacollis* Angola p. 20, CAMERON Publ. cult. Comp. Diam. Angola no. 11.

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Chondrogastrosipalia **subgen. n.** (type *moczarskii* Scheerp.) see *Sipalia.*

Cryptobium diehli **sp. n.** Peru p. 286 [275], BERNHAUER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Dichondrosipalia **subgen. n.** (type *nivicola* Fairm.) see *Sipalia.*

Ditroposipalia **subgen. n.** (type *bidens* Baudi) see *Sipalia.*

Dolicaon uniformis **sp. n.** Angola p. 28, CAMERON Publ. cult. Comp. Diam. Angola no. 11.

Dorylocratus Wasm. valid gen. p. 263, PATRIZI Boll. Ist. Ent. Bologna **18.**

Echiaster rödingeri **sp. n.** Peru p. 282 [271], BERNHAUER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Encephalus americanus **sp. n.** U.S.A. p. 753 fig., SEEVERS Fieldiana Zool. **32.**

Espeson titschacki **sp. n.** Peru p. 278 [268], BERNHAUER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Eudectus whitei Sharp (=*novayaezemlyae* Munst.) p. 104, STRAND Ent. mon. Mag. **87.**

Euryalea obliterata **sp. n.** Tunisia p. 25 figs., NORMAN Rev. franç. Ent. **18.**

Gabrius keys to groups of French spp. p. 105; *biturigensis* **sp. n.** France p. 113 figs., COIFFAIT Rev. franç. Ent. **18.**

Gauropterus gedyei **sp. n.** Uganda p. 400, CAMERON J. E. Afr. nat. Hist. Soc. **20.**

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Jeanneliusa Bernh. valid gen. p. 263; *giaquintoi* **sp. n.** Abyssinia p. 259 figs., PATRIZI Boll. Ist. Ent. Bologna **18.**

* See footnote on p. 242.

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Staphylinus (*S.*) *cincticollis*, (*S.*) *solwezianus*, (*Abernus*) *rhodesianus* **spp. n.** N.W. Rhodesia p. 404, CAMERON J. E. Afr. nat. Hist. Soc. **20.**—*S.* (*Platydracus*) *lomii* p. 17, (*P.*) *yolensis* p. 20 **spp. n.** Punjab figs., CERRUTI Riv. Biol. colon. **10.**—*S.* (*Platydracus*) *bocandéi* **sp. n.** Senegal, Fr. Guinea p. 235, FAGEL Bull. Ann. Soc. ent. Belg. **87.**

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Thinobius (*T.*) *aegyptiacus*, (*T.*) *flavipennis* **spp. n.** Libyan Desert p. 281, CAMERON Bull. Soc. Fouad 1er Ent. **35.**

Thinocharis vilhenai p. 21, *africanus, aethiops* p. 22 **spp. n.** Angola, CAMERON Publ. cult. Comp. Diam. Angola no. 11.—*T. palcoensis* p. 283 [272], *peruviana* p. 283 [273] **spp. n.** Peru, BERNHAUER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Thoracophorus peruvianus **sp. n.** Peru p. 278 [268], BERNHAUER t.c.

Trachyglutosipalia **subgen. n.** (type *arazeccana* Bernh.) see *Sipalia.*

Trigonopalus **gen. n.** (nr. *Pammegus*), *pilosus* **sp. n.** Uganda p. 405, CAMERON J. E. Afr. nat. Hist. Soc. **20.**

Triptychosipalia **subgen. n.** (type *glacialis* Bris.) see *Sipalia.*

Trogophloeus (*T.*) *cooperi* **sp. n.** Libyan Desert p. 279, CAMERON Bull. Soc. Fouad 1er Ent. **25.**—*T. opacellus* **sp. n.** Peru p. 280 [269], BERNHAUER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

* See footnote on p. 242.

Tropimenelytron **gen. n.** for *Sipalia tuberiventris* Eppelsh. p. 171, Scheerpeltz Verh. zool.-bot. Ges. Wien **92.**

Tropogastrosipalia **subgen. n.** (type *meschniggiana* Bernh.) see *Sipalia.*

Tylosipalia **subgen. n.** (type *flava* Kr.) see *Sipalia.*

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Xantholinus (*X.*) *politus*, (*X.*) *tripunctatus* p. 399, (*X.*) *inopinatus* p. 400 **spp. n.** Kenya, Cameron J. E. Afr. nat. Hist. Soc. **20.**—*X. tricolor* & allied European spp. revision pp. 1–12 figs., Gridelli Atti Mus. Stor. nat. Trieste **18** 1950.

Zyras (*Macrogerodonia* **subgen. n.**) *magnicollis* **sp. n.** Peru p. 292 [281], Bernhauer Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Pselaphidae.

Pselaphidae of Abyssinian Expeditions 1926–27 and 1948–49, Jeannel Ann. Mag. nat. Hist. (12) **4** pp. 225–249, 24 figs.

Pselaphids collected by Leleup in Belg. Congo, Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10** 80 pp. 37 figs.

Pselaphidae of S.W. Arabia Expedition, Jeannel Exped. S.W. Arabia 1937–8 **1** pp. 299–305, 5 figs.

Pselaphids of Angola collected by de Barros Machado, Jeannel Publ. cult. Comp. Diam. Angola no. 9 125 pp. 74 figs.

Classification of Pselaphini genn., Jeannel Rev. franç. Ent. **18** pp. 5–11.

Pselaphids of Katanga, Belgian Congo, Jeannel Rev. franç. Ent. **18** pp. 126–142, 11 figs.

Catalogue of Portuguese Pselaphids, Ladeiro Mem. Estud. Mus. Zool. Coimbra no. 206, 8 pp.

Cavernicolous Pselaphids of Alabama and Tennessee (key to tribes of W. Hemisphere p. 56), Park Mus. Pap. Alabama Mus. nat. Hist. no. 31, 107 pp. 18 figs.

Adiastulus angolanus **sp. n.** Angola p. 94 fig., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Afropselaphus see *Pselaphogenius.*

Anomoplectus **subgen. n.** (type *micropalpus* sp. n.) see *Euplectus.*

Anomozethus **gen. n.**, *caecus* **sp. n.** Angola p. 25 figs., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Anthocomus barri p. 89, *atratus* p. 90 **spp. n.** California, Marshall Proc. Calif. Acad. Sci. (4) **27.**

Apharina katangae **sp. n.** Belg. Congo p. 60 fig., Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*A. rotundicollis* **sp. n.** Angola p. 103 fig., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Apobatrisus angolanus **sp. n.** Angola p. 72 fig., Jeannel t.c.

Arianops (*Arispeleops* **subgen. n.**) *cavernensis* **sp. n.** U.S.A. p. 41 fig., Park Mus. Pap. Alabama Mus. nat. Hist. no. 31.

Arispeleops **subgen. n.** (type *cavernensis* sp. n.) see *Arianops.*

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Asymoplectus machadoi **sp. n.** Angola p. 32 figs., Jeannel t.c.

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Babnormodes **subgen. n.** (type *riparius* Say) see *Batrisodes.*

Barrosellus **gen. n.** p. 107, *sphaeroides* **sp. n.** Angola p. 108 fig., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

* See footnote on p. 242.

Batoxyla torticornis **sp. n.** Belg. Congo p. 38 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Batriasymmodes **subgen. n.** (type *monstrosus* Lec.) see *Batrisodes.*

Batrisiotes **gen. n.** p. 90, *clavigeroides* **sp. n.** Angola p. 91 fig., JEANNEL Publ. cult. Comp. Diam. Angola no. 9.—*B. clavigeroides* ♂ p. 138 figs., JEANNEL Rev. franç. Ent. **18.**

Batrisochorus scotti **sp. n.** Abyssinia p. 237 figs., JEANNEL Ann. Mag. nat. Hist. (12) **4.**

Batrisodes (*Batriasymmodes* p. 9, *Babnormodes, Pubimodes, Excavodes* p. 12, *Elytrodes, Declivodes* p. 13 **subgenn. n.**), (*Batriasymmodes*) *spelaeus* p. 16, (*B.*) *quisnamus* p. 20, (*B.*) *jeanneli* p. 21, (*B.*) *troglodytes* p. 23, (*Excavodes*) *cavernosus* p. 25, (*Babnormodes*) *jonesi* p. 27, (*B.*) *subterraneus* p. 30, (*B.*) *valentinei* p. 32, (*B.*) *specus* p. 35 **spp. n.** U.S.A. figs., PARK Mus. Pap. Alabama Mus. nat. Hist. no. 31.

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Bibloplectus revision of British spp. pp. 65–83, the non-British Palaearctic spp. p. 67, characters p. 69, keys p. 80 ; *academicus* p. 72, *intermedius* p. 75 **spp. n.** Br. Isles ; *margaretae* redescription p. 76 ; *pusillus* Denny valid sp. not synonym of *ambiguus* Reich., *a.* the genotype p. 66 ; speciation pp. 136–138 figs., PEARCE Ent. mon. Mag. **87.**

Bothriotelus **gen. n.** p. 46, *leleupi* **sp. n.** Belg. Congo p. 47 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Bythinoplectus gloydi **sp. n.** Arizona p. 316 fig., PARK Bull. Chicago Acad. Sci. **8** 1949.

Bythinopsis jonesi **sp. n.** U.S.A. p. 43 fig., PARK Mus. Pap. Alabama Mus. nat. Hist. no. 31.

Camaldosis **gen. n.,** *crassicornis* **sp. n.** Belg. Congo p. 69 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Camaldus cholifer **sp. n.** Belg. Congo p. 67 fig., JEANNEL t.c.—*C. angolanus crassicornis, hirtus* p. 124, *minutus* p. 125 **spp. n.** Angola figs., JEANNEL Publ. cult. Comp. Diam. Angola no. 9.

Camptomites machadoi p. 93, *vilhenai* p. 94 **spp. n.** Angola figs., JEANNEL t.c.—*C. acanthurus* **sp. n.** Abyssinia p. 242 figs., JEANNEL Ann. Mag. nat. Hist. (12) **4.**—*C. katanganus* **sp. n.** Belg. Congo p. 55 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Catoxyomus cristatus **sp. n.** Belg. Congo p. 49 fig., JEANNEL t.c.

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Centrophthalmosis pratensis **sp. n.** Belg. Congo p. 68 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Centrophthalmus exilis, major **spp. n.** Belg. Congo p. 65 figs., JEANNEL t.c.

Clavigerodes (*Clavigeropsis*) *breviceps* **subsp. n.** *katanganus* Belgian Congo p. 128 figs., JEANNEL Rev. franç. Ent. **18.**—*C.* (*Clavigeropsis*) *breviceps* **sp. n.** Angola p. 27 fig., JEANNEL Publ. cult. Comp. Diam. Angola no. 9.

Cliarthrinus longulus **sp. n.** Angola p. 77 fig., JEANNEL t.c.

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Cliarthromorphus **gen. n.,** *acuminatus* **sp. n.** Belgian Congo p. 134 figs., JEANNEL Rev. franç. Ent. **18.**

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Ctenistes primitivus **sp. n.** Belg. Congo p. 62 fig., JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

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Decarthron rayi **sp. n.** Illinois p. 325 fig., PARK Bull. Chicago Acad. Sci. **8** 1949.

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Pselaphoxys arabicus **sp. n.** Yemen p. 303, JEANNEL Exped. S.W. Arabia 1937–8 **1.**

Pselaphus (*Pselaphinus* **subgen. n.**) *reitterianus* **n. n.** for *reitteri* Jeann. nec Raffr. p. 10, JEANNEL Rev. franç. Ent. **18.**—*P. femoralis* **sp. n.** Angola p. 112 fig., JEANNEL Publ. cult. Comp. Diam. Angola no. 9.—*P. filipalpis*, *elgonicus*, *hulstaerti*, *dartevellei*, *longiceps*, *laevicollis*, *pilicollis*, *trossulus*, *acuminatus* see *Pselaphidius*; *bizonatus* see *Neopselaphus*.

Pseudoplectus sulcatus p. 26, *foveatus* p. 27, *stricticollis* p. 28 **spp. n.** Belg. Congo, JEANNEL Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*P. vilhenai* **sp. n.** Angola p. 34 fig., JEANNEL Publ. cult. Comp. Diam. Angola no. 9.

Pubimodes **subgen. n.** (type *nigricans* Lec.) see *Batrisodes*.

Raffrayia leleupi **sp. n.** Belg. Congo p. 32, Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*R. machadoi* p. 45, *obesa* p. 46 **spp. n.** Angola figs., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Reichenbachia pluridentata **sp. n.** Illinois p. 323 fig., Park Bull. Chicago Acad. Sci. **8** 1949.

Scaiomelus **subgen. n.** (type *bredoi* Jeann.) see *Arthromelus*.

Scydelites **gen. n.** p. 75, *spiniventris* **sp. n.** Belg. Congo p. 76 figs., Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

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Speleobama **gen. n.** p. 52, *vana* **sp. n.** U.S.A. p. 53 fig., Park Mus. Pap. Alabama Mus. nat. Hist. no. 31.

Speleochus **subgen. n.** (type *stygicus* sp. n.) see *Machaerites*.

Stilipalpus **gen. n.** p. 73, *clavipes* **sp. n.** Belg. Congo p. 74 figs., Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**

Syrbatus nodicornis p. 79, *auriculatus* p. 80, *machadoi* p. 81, *vilhenai* p. 82 **spp. n.** Angola figs., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Tmesiphorus myrmecophilus **var. n.** *antennalis* Belg. Congo p. 64, Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*T. simplex* **sp. n.** Belgian Congo p. 141 figs., Jeannel Rev. franç. Ent. **18.**—*T. quadrispina* **sp. n.** Angola p. 120 figs., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Trabisostenus machadoi **sp. n.** Angola p. 75 figs., Jeannel t.c.

Trabisus giganteus characters p. 235 figs., Jeannel Ann. Mag. nat. Hist. (12) **4.**—*T. striatus*, *thoracicus* p. 41, *planifrons* p. 42, *simininus* p. 43 **spp. n.** Belg. Congo figs., Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*T. planifrons*, *tuberifrons* ♀♀; *auriculatus* **sp. n.** Belgian Congo p. 131 figs., Jeannel Rev. franç. Ent. **18.**

Trimioplectus auerbachi **sp. n.** U.S.A. p. 319 fig., Park Bull. Chicago Acad. Sci. **8** 1949.

Trissemus (*T.*) *angolanus* p. 64, (*T.*) *machadoi* p. 66, (*T.*) *distinctus*, (*T.*) *nigriclavis* p. 67, (*T.*) *damaliscus*, (*T.*) *clavator*, (*T.*) *acutipalpus* p. 68 **spp. n.** Angola figs., Jeannel Publ. cult. Comp. Diam. Angola no. 9.—*T.* (*T.*) *stenomus* **sp. n.** Abyssinia p. 233 figs., Jeannel Ann. Mag. nat. Hist. (12) **4.**—*T. temporalis* **sp. n.** Belg. Congo p. 37, Jeannel Ann. Mus. Congo belge (Sér. 8°) Zool. **10.**—*T.* (*T.*) *brittoni* **sp. n.** Aden p. 300 fig., Jeannel Exped. S.W. Arabia 1937–8 **1.**

Tychus daggyi **sp. n.** N. Carolina p. 327 fig., Park Bull. Chicago Acad. Sci. **8** 1949.

Typhloleptus **gen. n.**, *machadoi* **sp. n.** Angola p. 15 fig., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

Typhlozethus **subgen. n.** (type *machadoi* sp. n.) see *Octozethus*.

Xiphobythus **gen. n.** p. 59, *machadoi* **sp. n.** Angola p. 60 fig., Jeannel Publ. cult. Comp. Diam. Angola no. 9.

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Austrocatops **gen. n.** p. 26, *campbellicus* **sp. n.** Campbell I. p. 27 fig., Brookes Bull. Cape Exped. Ser. no. 5.

Choleva holsatica, *septentrionis* distinguishing characters p. 47, Benick Zool. Anz. **145** 1950 Ergänzungsband (Klatt Festschr.).

Colon dentipes Sahlb. (=*finitivum* Ihss.); *dubiosum* **sp. n.** Centr. Europe p. 110 figs., Ihssen Ent. Bl. **45–46.**

Neobathyscia pasai **sp. n.** Italy p. 128, Ruffo Mem. Mus. Stor. nat. Verona **2** (1949–50) [?1951].

Oritocatops leleupi **sp. n.** Belg. Congo p. 74 figs., JEANNEL Rev. Zool. Bot. afr. **45.**

LIODIDAE.

Agathidium (*Neoceble*) *alutaceum*, (*N.*) *canariense* **spp. n.** Canary Is. p. 4, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

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Scaphosoma minutissimum **sp. n.** Senegal p. 1100, PIC Bull. Inst. franç. Afr. noire **13.**

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Histerids of forest reserve, Banco, Ivory Coast, PAULIAN Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2 pp. 185–191, 1 fig.

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Meligethes bidentatus, *punctatus* distinct spp.; *corsicus* a var. of *b.* pp. 10–15; revision of spp. in Stephens' collection pp. 281–284; *flavimanus* S. (=*lumbaris* Sturm); *nigrescens* Steph. (=*picipes* Sturm); *aeneus* F. (=*nigrinus* Marsh. nec Ev.); *flavipes* Sturm (=*subrugosus* Steph. nec Gyll.) p. 284 figs., EASTON Ent. mon. Mag. **87.**

Pycnocephalus argentinus larva p. 39, adult p. 41 figs., PARKER Proc. ent. Soc. Wash. **53.**

CUCUJIDAE (HEMIPEPLIDAE).

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Laemophloeus of France and Belgium pp. 87–92, LECHANTEUR Feuille Nat. (N.S.) **5.**

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PHALACRIDAE.

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THORICTIDAE.

Systematic position of Thorictidae discussed, VAN EMDEN Bull. Brooklyn ent. Soc. **46** p. 40.

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Thorictodes heydeni Reitt. (= *Thaumaphrastus karanisensis* Blais.) p. 39, VAN EMDEN Bull. Brooklyn ent. Soc. **46.**

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Albert, Miss. de Witte (1933–35) no. 75, 26 pp. 2 pls. 11 figs.

Atomaria (*Anchicera*) *brevis* **sp. n.** Canary Is. p. 6, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

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EROTYLIDAE.

Revision of Erotylids of Peru (contd.), MADER Ent. Arb., Münich **2** pp. 197–225.

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COCCINELLIDAE.

Catalogue of Colombian Coccinellids, GACHARNÁ Rev. Acad. colomb. Cienc. **8** pp. 243–244, 1 pl.

Coccinellidae of S.W. Arabia Expedition, KAPUR Exped. S.W. Arabia 1937–8 **1** pp. 275–297, 2 pls. 1 fig.

Coccinellidae of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1941 pp. 558–566.

Adalia decempunctata **abb. n.** *separatolunuluta*, *latelunulata*, *binotata* Carpathians p. 144, CSIKI Acta biol. Acad. Sci. hung. **2.**

Anatis ocellata larva, pupa p. 176, VAN DINTHER Tijdschr. Ent. **94.**

Aphidecta obliterata larva, pupa p. 169, VAN DINTHER t.c.

Brumus nigrosuturalis **sp. n.** Yemen, Kamaran I. p. 293, KAPUR Exped. S.W. Arabia 1937–8 **1.**

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Rodolia descriptive and distributional notes on some Indian spp. pp. 1–7, key p. 6; *nigrofrontalis* **sp. n.** India p. 5 figs., KAPUR Rec. Indian Mus. **48.**

Scymnus (*S.*) *incisus*, (*Pullus*) *persimilis* **spp. n.** Canary Is. p. 7, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Veronicobius subantarcticus **sp. n.** Campbell I. p. 37 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

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Montandonia roubali **sp. n.** Altai p. 152 figs., KALÍK Ann. hist.-nat. Mus. hung. (N.S.) **1.**

Pseudohadrotoma **subgen. n.** (type *obenbergeri* sp. n.) see *Globicornis.*

Trogoderma afrum **sp. n.** Egypt, Sudan p. 133 figs., PRIESNER Bull. Soc. Fouad 1er Ent. **35.**

BYRRHIDAE.

Anthrenus rossii see *Pedilophorus nitidus.*

Byrrhus (s. str.) revision of European spp. pp. 293–304 figs., FIORI Boll. Ist. Ent. Bologna **18.**—*B. rossii* see *Pedilophorus nitidus.*

Liochoria sorenseni **sp. n.** Campbell I. p. 32, BROOKES Bull. Cape Exped. Ser. no. 5.

Pedilophorus (*Lamprobyrrhulus*) *nitidus* Schall. (=*Byrrhus rossii* Ponza, *Anthrenus rossii* G. & H.) p. 44, CAPRA Boll. Soc. ent. ital. **81.**

DRYOPIDAE (PARNIDAE).

Psephenoid larva of an aquatic Coleopteron, BERTRAND Publ. cult. Comp. Diam. Angola no. 11 pp. 85–95, 29 figs.

Check list of Australian Dryopidae, BROOKS N. Queensl. Nat. **19** pp. 4–5.

ELMIDAE.

Cylloepus vianai **sp. n.** Argentina p. 820 figs., HINTON Ann. Mag. nat. Hist. (12) **4.**

HYDROPHILIDAE.

Hydraenidae (pp. 196–203, 7 figs.) and Hydrophilidae (pp. 203–220, 3 figs.) of S.W. Arabia Expedition, BALFOUR-BROWNE Exped. S.W. Arabia 1937–8 **1.**

Hydrophilidae of Peru, D'ORCHYMONT Beitr. Fn. Perus Bd. I 1941 pp. 307–311 [all but 6 copies destroyed in the War; re-issued 1951 as Bd. 2 pp. 295–299].

Dactylosternum arabicus **sp. n.** Aden, Yemen p. 205 fig., BALFOUR-BROWNE Exped. S.W. Arabia 1937–8 **1.**

Enochrus (*Methydrus*) *hesperidum* Sharp (=*Philhydrus reductus* Rég.) p. 213, BALFOUR-BROWNE t.c.

Helophorus (*H.*) *arabicus* Sharp (=*fryanus* S.) p. 203, BALFOUR-BROWNE t.c.

Hydraena (*H.*) *arabica* **sp. n.** Aden, Hejaz p. 201 figs., BALFOUR-BROWNE t.c.—*H.* revision of Czechoslovakian spp. pp. 201–226, key p. 222; *bohemica* **sp. n.** Bohemia p. 223, HRBÁČEK Acta Soc. ent. Čsl. **48.**

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Meropathus chuni **subsp. n.** *campbellensis* Campbell I. p. 28, Brookes Bull. Cape Exped. Ser. no. 5.

Ochthebius (*Hymenodes*) *innexus* p. 197, (*H.*) *micans* (also Aden) p. 198, (*H.*) *cameroni* p. 199 **spp. n.** Yemen figs., Balfour-Browne Exped. S.W. Arabia 1937–8 **1.**

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Thysanarthria brittoni **sp. n.** Aden p. 215 fig., Balfour-Browne Exped. S.W. Arabia 1937–8 **1.**

Dascillidae.

Acneus oregonensis **sp. n.** Oregon p. 271, Fender Proc. ent. Soc. Wash. **53.**

Eubrianax invittatus **sp. n.** Belg. Congo p. 156, Pic Rev. Zool. Bot. afr. **44.**

Scirtes planicornis **sp. n.** Guatemala p. 670, Champion Trans. ent. Soc. Lond. **1913** 1914.

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Dinoderus japonicus larva p. 72 figs., Heqvist Ent. Tidskr. **72.**

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Dryophilus canariensis **sp. n.** Canary Is. p. 7, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Grynobius planus F. (?=*excavatus* Kug., *tricolor* Ol.) pp. 224–227 fig., Strand Norsk ent. Tidsskr. **8.**

Lasioderma minutum **sp.n.** Canary Is. p. 8, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Ptinidae.

Mezium horridum **sp. n.** Canary Is. p. 8, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Ptinus characters and systematic position of subgen. *Gynopterus* pp. 14–19, Günther Acta Soc. ent. Čsl. **48.**—*P. bidens* larva p. 150 figs., Cohic Entomologiste **5.**

Trichodesma sublineata p. 667, *discigera* p. 668, *convexa* p. 669 **spp. n.** W. Mexico, Champion Trans. ent. Soc. Lond. **1913** 1914.

Cleridae.

Cleridae of Ohio, Knull Bull. Ohio biol. Surv. **8** pp. 269–350, 13 pls.

Clerus mutillarius **abb. n.** *dostáli*, *havelkai* Bohemia p. 165 figs., Winkler Acta Soc. ent. Čsl. **48.**

Clytomadius **gen. n.** p. 100, *louwerensi* **sp. n.** Java p. 101 figs., Corporaal Bijdr. Dierk. **28** 1949.

Enoclerus gerhardi Wolc. a var. of *nigrifrons* Say p. 296; *muttkowskii* Wolc. (=*liljebladi* Wolc.) p. 297, Knull Bull. Ohio Univ. Stud. no. 42.

Laiomorphus further description p. 105; *alticola* **sp. n.** Sumatra p. 104 figs., Corporaal Bijdr. Dierk. **28** 1949.

Omadius drescheri **sp. n.** Java p. 102 figs., Corporaal t.c.

Opilo mollis **ab. n.** *javorinae* Poland p. 165 fig., Winkler Acta Soc. ent. Čsl. **48.**

Orthrius pygidialis **sp. n.** Sumatra p. 97 figs., Corporaal Bijdr. Dierk. **28** 1949.

Stenocylidrus risbeci **sp. n.** Senegal p. 207, Pic Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Thanasimus rufipes **abb. n.** *brodensis* p. 165, *štysi*; *formicarius* **ab. n.** *w-album* p. 166 Bohemia figs., Winkler Acta Soc. ent. Čsl. **48.**

Tillicera ihlei **sp. n.** Java p. 99; *javana* **ab. n.** *luchti* Sumatra p. 100 figs., Corporaal Bijdr. Dierk. **28** 1949.

Trichodes favarius **f. n.** *mysticus* Dalmatia p. 38 fig., Winkler Bull. Soc. ent. Mulhouse **1951.**

Xenorthrius beauforti **sp. n.** Java p. 98 figs., Corporaal Bijdr. Dierk. **28** 1949.

Malachiidae.

Catalogue of Malachiids, II, Wittmer An. Soc. cient. argent. **151** p. 278.

Apalochrus semicyaneus **sp. n.** Cameroons p. 218, Pic Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Attalus coeruleipennis, *tristis*, *ochraceus*, *palmensis* **spp. n.** Canary Is. p. 3, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.—*A.*

demoflysi **sp. n.** Tunisia p. 28 figs., NORMAND Rev. franç. Ent. **18.**—*A.* revision of N. American spp. pp. 94–128, key p. 96; *morulus* Lec. (=*smithi coloradensis* Marshall); *smithi* Hopp. a subsp. of *morulus* p. 101; *frosti, illinoisensis* p. 102, *balteatus* p. 109, *tucsonensis* p. 110 (with **subsp. n.** *sanctus* p. 111), *sulphureus* p. 112, *diffusus* p. 116, *utahensis* p. 119, *subtropicus* p. 122, *santarosae* p. 123 U.S.A., *limonis* Mexico p. 127 **spp. n.**; *oregonensis* **var. n.** *rubyae* Arizona p. 115, MARSHALL Proc. Calif. Acad. Sci. (4) **27.**

Collops arizonensis p. 80, *simplex* p. 82, *pallipes* p. 83, *knulli* p. 84, *peninsularis* p. 85 **spp. n.** U.S.A.; *bridgeri* ♀ p. 80, MARSHALL t.c.

Laius (*Dicranolaius*) *championi* **n. n.** for *flavonotatus* Champ. nec Lea p. 278, WITTMER An. Soc. cient. argent. **151.**

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Pseudebaeus apicalis Horn (= *oblitus* Lec.) p. 92, MARSHALL t.c.

Sphinginus mexicanus **sp. n.** Mexico p. 128, MARSHALL t.c.

DASYTIDAE.

Dasytes (*Mesodasytes*) *canariensis* **sp. n.** Canary Is. p. 4, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Pagurodactylus subcinctus Pic (= *masaicus* Champ.) p. 278, WITTMER An. Soc. cient. argent. **151.**

TELEPHORIDAE (CANTHARIDAE).

Revision of Malthini of N. America, FENDER Amer. Midl. Nat. **46** pp. 513–629, 255 figs.

Catalogue of Telephorids, II, WITTMER An. Soc. cient. argent. **151** pp. 276–278.

Amanimalthodes see *Prosthaptus.*

Cantharis aneba **sp. n.** p. 630 (with **subsp. n.** *borealis* (also Canada) p. 633) U.S.A. figs., MCKEY-FENDER Amer. Midl. Nat. **46.**

Chauliognathus neopici **n. n.** for *flavipennis* Pic nec MacL. p. 277, WITTMER An. Soc. cient. argent. **151.**

Collartimalthodes see *Prosthaptus.*

Dysmorphocerus simplicicornis **sp. n.** Argentina p. 187, WITTMER Rev. chil. Ent. **1.**

Frostia **gen. n.** for *Malthodes laticollis* Fall (type), *M. reflexus* Fall p. 524; *impressus* p. 525, *malkini, bidentatus* p. 526 **spp. n.** U.S.A. figs., FENDER Amer. Midl. Nat. **46.**

Malthinus granicollis, quadrimaculatus p. 520, *tricolor* p. 522, *huachucae* p. 523 **spp. n.** U.S.A. figs., FENDER t.c.

Malthodes cordicaudus p. 530, *fracidus, evanidus* p. 531, *picithorax* p. 534, *mackenziei* p. 535, *glyphidius, pictus* p. 538, *insipidus* p. 539, *arizonensis, albimontanus* p. 540, *knowltoni* p. 543, *chapini, adoxus* p. 544, *truncatus, tribulus* p. 545, *atrocoeruleus* p. 546, *whittakeri, werneri* p. 550, *flexuosus* p. 552, *hatcheana* p. 553, *knulli* p. 555, *mediocciden*s p. 556, *leechi* p. 558, *similis* p. 561, *canaliculatus* p. 564, *anatiformis* p. 566, *diegae* p. 568, *chiricahuae* p. 569, *margaritae* p. 571, *bisinuatus, tumidicollis* p. 574, *diamondensis* p. 576, *sinuatus* p. 577, *intermedius* p. 578, *orovillensis* p. 579, *spinicaudus* p. 581 *forficatus* p. 582, *blackwelderi* p. 583, *lawrencei* p. 584, *eximius* p. 585, *vandykei, vanduzeeana* p. 587, *complexipygus* p. 588, *singularis* p. 589, *abruptus, piperi* p. 591, *bakeri* (also Canada) p. 593, *contortus* p. 594, *intricatus* p. 595, *idahoensis* p. 596, *complexus* p. 599, *sandersoni* p. 600, *megapygus* p. 601, *californicus* p. 602, *ovatus* p. 603, *profusus* p. 604, *evexus* p. 605, *ute, dorothae* p. 607, *provoensis* p. 608 U.S.A., *columbiensis* p. 536, *acuticaudus* p. 692, *canadensis* p. 606 Canada **spp. n.**; *fuliginosus* **var. n.** *flavicollis* U.S.A. p. 570 figs., FENDER t.c.—*M. monstrosicornis* see *Prosthaptus claudus*; *mirabilicornis, singularicornis, ugandensis, jeanneli, pilosicornis, amanius, evansi* see *P.*; *laticollis, reflexus* see *Frostia.*

Oontelus wygodzinskyi **sp. n.** Argentina p. 188 fig., WITTMER Rev. chil. Ent. **1.**

Prosthaptus Gorh. (=*Collartimalthodes* Pic, *Amanimalthodes* P.);

claudus Gorh. (=*Malthodes monstrosicornis* P.); *mirabilicornis* P., *singularicornis* P., *ugandensis* P., *jeanneli* P., *pilosicornis* P., *amanius* P., *evansi* P. from *M.* p. 215; *tincticornis* Belg. Congo p. 216, *africanus*, *impressicornis* Cameroons p. 217 **spp. n.** figs., WITTMER Rev. Zool. Bot. afr. **44.**

Silidius ifanensis **sp. n.** Ivory Coast p. 204, PIC Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

LYCIDAE.

Lycids of Port. Guinea, GOMES ALVES Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2 pp. 233–236.

Lycidae of U.S.A. and Canada III, Platerodini (part), GREEN Trans. Amer. ent. Soc. **77** pp. 1–20, 2 pls.

Lycidae of Peru, KLEINE Beitr. Fn Perus Bd. 1 1941 pp. 295–306, 20 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 283–294, 20 figs.].

Key to some German Lycid larvae, KORSCHEFSKY Beitr. Ent., Berl. **1** p. 61 figs.

Celetes subtilis **sp. n.** Peru p. 302 [290] figs., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Dictyopterus key to Nearctic spp. p. 3; *aurora* Herbst (=*Eros nigripes* Schaef.); *simplicipes* Mannerh. (=*laetus* Mots.) p. 6 figs., GREEN Trans. Amer. ent. Soc. **77.**—*D. trilineatus* see *Eropterus.*

Emplectus platythorax **sp. n.** Peru p. 302 [290] figs., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Eropterus **gen. n.** for *Dictyopterus trilineatus* Mels. (type) p. 14; *rectus* p. 16, *arculus* (also Canada), *bilineatus* p. 17 **spp. n.** U.S.A. figs., GREEN Trans. Amer. ent. Soc. **77.**

Eros nigripes see *Dictyopterus aurora.*

Erotides see *Platycis.*

Falsocaenia grisea **sp. n.** Peru p. 299 [287] figs., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Flabellolycinella **gen. n.**, *croceus* **sp. n.** Peru p. 303 [291], KLEINE t.c.

Homalisus fontisbellaquei variation pp. 85–92 fig., WINKLER & HAVELKA Bull. Soc. ent. Mulhouse **1951.**

Idiopteron nigricolle **sp. n.** Peru p. 299 [287] figs., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Lycus ensellatus **var. n.** *andrei*; (*Haplolycus*) *atrocinctus* **sp. n.** Ivory Coast p. 204, PIC Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Lygistopterus peruvianus **sp. n.** Peru p. 306 [294] figs., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Mesopteron crassicornis p. 297 [285], *titschacki* p. 298 [286] **spp. n.** Peru figs., KLEINE t.c.

Metapteron diffusum (also Surinam) p. 300 [288], *observans* p. 301 [289] **spp. n.** Peru figs., KLEINE t.c.

Neoceletes see *Plateros.*

Plateros Bourg. (=*Neoceletes* Lèng & Sh.) p. 2, GREEN Trans. Amer. ent. Soc. **77.**—*P. uhmanni* **sp. n.** Peru p. 304 [292] fig., KLEINE Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Platycis Thoms. (=*Erotides* Waterh.) p. 9, GREEN Trans. Amer. ent. Soc. **77.**

Pseudoplateros **gen. n.** p. 18, *moleculus* **sp. n.** Texas p. 19 figs., GREEN t.c.

LAMPYRIDAE.

Key to some German Lampyrid larvae, KORSCHEFSKY Beitr. Ent., Berl. **1** p. 61 figs.

Diaphanus signaticollis **sp. n.** Cameroons p. 217, PIC Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Luciola binotata, *discobrunnescens* **spp. n.** Cameroons p. 218, PIC t.c.

Photuris revision of N. American spp. pp. 1–58, key p. 20 (characters by MCDERMOTT p. 37); *brunnipennis* var. *falli* **n. n.** for *flavicollis* Fall nec Ol.; *b.* **var. n.** *floridana* p. 24; *potomaca* p. 28, *pyralomimus*, *fairchildi*, *tremulans* p. 31, *caerulucens*, *aureolucens* p. 32, *lucicrescens* p. 33, *hebes* p. 34, *salinus*, *cinctipennis* p.35 **spp. n.**; *versicolor* **var. n.** *quadrifulgens* p. 30 U.S.A. fig., BARBER Smithson. misc. Coll. **117** no. 1.

* Bd. 2 1951 is a re-issue of Bd. 1 1941, of which all but 6 copies were destroyed in the War. The pagination of Bd. 1 is followed by that of Bd. 2 in square brackets.

DRILIDAE (KARUMIIDAE).

Key to some German Drilid larvae, KORSCHEFSKY Beitr. Ent., Berl. **1** p. 61 figs.

Malacogaster olcesei p. 296 (with **var. n.** *reductus*), *theryi* (with **var. n.** *notativentris*) p. 297 **spp. n.** Morocco, PIC Bull. Soc. Sci. nat. Maroc **29.**

ELATERIDAE (PHYLLOCERIDAE, DICRONYCHIDAE).

Elaterids of Almeria, Spain, COBOS Bol. Soc. esp. Hist. nat. **48** 1950 Secc. Biol. pp. 155–157.

Elateridae of Georgia, FATTIG Emory Univ. Mus. Bull. no. 10, 25 pp.

Key to and descriptions of Czech Elaterid larvae of agricultural importance, JAGEMANN Ent. Listy **14** pp. 62–75, 7 figs.

Elateridae of Hautes-Fagnes, Belgium, XXII, JEUNIAUX Bull. Ann. Soc. ent. Belg. **87** pp. 206–228, 4 maps.

Alaus spinicollis **sp. n.** Dutch New Guinea p. 323, VAN ZWALUWENBURG Proc. Hawaii. ent. Soc. **14.**

Athous farallonicus **sp. n.** California p. 28, VAN DYKE Pan-Pacif. Ent. **27.**

Cardiophorus (*C.*) *bipunctatus* **var. n.** *almeriensis* Spain p. 155, COBOS Bol. Soc. esp. Hist. nat. **48** 1950 Secc. Biol.

Coptostethus vestitus, *minutus* **spp. n.** Canary Is. p. 5, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Denticollinae raised to family status p. 163, JAGEMANN Ent. Listy **13.**

Elater nigrinus **var. n.** *fulvangulus* Carpathians p. 147, CSIKI Acta biol. Acad. Sci. hung. **2.**

Neopristilophus novaguinensis **sp. n.** Dutch New Guinea p. 325, VAN ZWALUWENBURG Proc. Hawaii. ent. Soc. **14.**

Odontocerus antigue further description p. 7 figs., BINAGHI Mem. Mus. Stor. nat. Verona **2** [?1951].

Tetrigus cristatus **sp. n.** Dutch New Guinea p. 324, VAN ZWALUWENBURG Proc. Hawaii. ent. Soc. **14.**

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Buprestidae of N. Centr. Mexico, CAZIER Amer. Mus. Novit. no. 1526 56 pp. 51 figs.

Buprestids of Almeria, Spain, COBOS Bol. Soc. esp. Hist. nat. **48** 1950 Secc. Biol. pp. 152–155.

Buprestids of Port. Guinea, GOMES ALVES An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 107–113.

Preliminary list of Buprestids of Iowa, KAJIHIRO & MILLSPAUGH Proc. Iowa Acad. Sci. **57** (1950) [?1951] pp. 541–543.

Buprestids of France, SCHAEFER Misc. ent. Suppl. (Tabl. anal. Col. fn. franco-rhénane) 1949 511 pp. 25 pls.

Acmaeodera key p. 3; *rockefelleri* **sp. n.** Mexico p. 9; *flavopicta* Waterh. (=*falli* Kerr.) p. 23, CAZIER Amer. Mus. Novit. no. 1526.—*A. bipunctata* **abb. n.** *posticebinotata* p. 49, *plena* p. 50; *degener* **ab. n.** *drahamensis*, **ab. n. n.** *maurita* for *maura* Schaef. nec Obenb. p. 51; *prunneri* subsp. *octodecimpunctata* **ff. n.** *marseuli*, *croissandeaui*, *genei*, *frangea*, *irregularis*, *chapmani*, *heterocincta*, *supplementa* p. 59; *cyanipennis* **var. n.** *perroti* pp. 41, 64, 493 France, SCHAEFER Bupr. France 1949.—*A. prunneri* **ff. n.** *degeneroides*, *unicincta* p. 4, *immaculifrons*, *biinterrupta*, *bicincta*, *ajax*, *dispar*, *suzannae*, *stabiaccensis*, *insularis*, *ariadne*, *agnusi*, *anomale* p. 5 Corsica; *cyanipennis* var. *perroti* larva p. 235, SCHAEFER Bull. mens. Soc. linn. Lyon **20.**—*A. boharti* **sp. n.** Porto Rico p. 29, VAN DYKE Pan-Pacif. Ent. **27.**

Actenodes auronotata **subsp. n.** *brederi* Bahamas p. 5, CAZIER Amer. Mus. Novit. no. 1517.

Agrilus key p. 29; *tarahumarae* p. 32, *bradti* p. 34, *chihuahuae* p. 36, *rockefelleri* p. 38 **spp. n.** Mexico figs., CAZIER op. cit. no. 1526.—*A. ohioensis* **sp. n.** U.S.A. figs., KNULL Ohio J. Sci. **51.**—*A. sulcicollis* **ab. n.** *chlorinella* p. 371; *pratensis* **ab. n.** *confusinella* p. 391; *aurichalceus* **ab. n.** *obtusifera* p. 402; *elegans* **subsp. n.** *teucrii* p. 415; *albogularis* **abb. n.** *ardua*, *gauthieri* p. 422 France, SCHAEFER Bupr. France 1949.

Anthaxia dimidiata **ab. n.** *scudensis* Corsica p. 6, SCHAEFER Bull. mens. Soc. linn. Lyon **20.**

Brachys marialicae **sp. n.** Mexico p. 24 fig., CAZIER Amer. Mus. Novit. no. 1526.

Buprestis haemorrhoidalis **ab. n.** *bicoloroides* Barbary p. 196, SCHAEFER Bupr. France 1949.

Chalcophora mariana **ab. n.** *madoni* France p. 121, SCHAEFER t.c.

Chrysobothris chryseola **subsp. n.** *lerneri* Bahamas p. 8 figs., CAZIER Amer. Mus. Novit. no. 1517.—*C. hidalgoensis* **sp. n.** U.S.A. p. 87 figs., KNULL Ohio J. Sci. **51.**—*C. sinaloae* **sp. n.** Mexico p. 30, VAN DYKE Pan-Pacif. Ent. **27.**

Colobogaster revision of Centr. & S. American spp. (key p. 8) pp. 1–43; *aurora* pp. 10, 26, *nickerli* pp. 14, 31, *belemensis* pp. 25, 36 Brazil, *bolivianus* pp. 11, 28, *amorosus* (with **var. n.** *glycychrous* (as *glycichrous* p. 38)) pp. 23, 36 Bolivia, *equadoricus* Ecuador pp. 20, 34 **spp. n.**; *geniculatus* **subsp. n.** *generosus* pp. 12, 30; *quadridentatus* **varr. n.** *manaosensis* Brazil, *plagiferus* Venezuela pp. 13, 30; *cyanitarsis* **varr. n.** *flammeolus* pp. 14, 31, *brasiliensis*; c. **subspp. n.** *mrázi* Brazil, *azteca* Mexico pp. 15, 32; *chlorostictus* **ab. n.** *centaureiventris* Brazil pp. 23, 36 figs., OBENBERGER Acta ent. Mus. nat. Pragae **26** 1948 no. 347.

Coroebus florentinus **ab. n.** *pici* France p, 322, SCHAEFER Bupr. France 1949.

Cylindromorphus parallelus **ab. n.** *sulculus* France p. 439, SCHAEFER t.c.

Eurythyrea micans **ab. n.** *ignea* Spain p. 154, COBOS Bol. Soc. esp. Hist. nat. **48** 1950 Secc. Biol.

Hesperorhipis mirabilis **subsp. n.** *albopennis* U.S.A. p. 87 fig., KNULL Ohio J. Sci. **51.**

Lampra (*Palmar* **subgen. n.** p. 167), SCHAEFER Bupr. France 1949.

Melanophila picta **abb. n.** *quatuordecimnotata*, *perroti* France p. 219, SCHAEFER t.c.

Meliboeus (*Melixes* **subgen. n.** p. 334), SCHAEFER t.c.

Melixes **subgen. n.** (type *aeratus* M. & R.) see *Meliboeus.*

Metataenia clotildae **subsp. n.** *refulgens* Solomon Is. p. 94, HELFER Pan-Pacif. Ent. **27.**

Palmar **subgen. n.** (type *festiva* L.) see *Lampra.*

Phaenops cyanea **ab. n.** *viridana* France p. 231, SCHAEFER Bupr. France 1949.

Poecilonota variolosa **ab. n.** *fagniezi* France p. 163, SCHAEFER t.c.

Polycesta arizonica **subsp. n.** *acidota* Mexico p. 28, CAZIER Amer. Mus. Novit. no. 1526.

Ptosima flavoguttata **abb. n.** *reductina* Italy, *obenbergeri* p. 84, *interna* (also Austria), p. 85, *isolata* Czechoslovakia, *errata* Centr. Europe p. 87, *prolongata* France p. 89, *jani* Syria p. 90, SCHAEFER Bupr. France 1949.

Sphenoptera lafertei early stages p. 160 figs., BATRA & RENJHEN Indian J. Ent. **12.**—*S. iridiventris* Cast. (=*ausonica* Obenb.) an ab. of *antigua* Ill. p. 101, SCHAEFER Bupr. France 1949.—*S.* (*Chrysoblemma*) *amudarjensis* p. 2, (*C.*) *tekkensis* p. 4 Centr. Asia, (*C.*) *staněki* Turkey, (*C.*) *mercedes* Morocco p. 3 **spp. n.**; (*C.*) *artemisiae* **ab. n.** *artaorte* Caucasus p. 5, OBENBERGER Acta ent. Mus. nat. Pragae **26** 1948 no. 350.

Trachys (*Habroloma*) *laxula* Java, (*H.*) *sassa* p. 2, (s. str.) *laya* p. 3 Sumatra **spp. n.**, OBENBERGER op. cit. **26** 1948 no. 349.—*T. fabricii* **n. n.** for *pygmaea* F. nec Deg. p. 472, SCHAEFER Bupr. France 1949.—*T. toringoi* **sp. n.** Japan p. 73, KUROASAWA Ent. Rev. Japan, Osaka **5.**

TENEBRIONIDAE (BORIDAE, RHYSOPAUSSIDAE, TRETOTHORACIDAE).

Tenebrionidae of the Pitiusas, Balearic Is., ESPAÑOL COLL Eos **27** pp. 7–41, 4 figs.

Key to Mediterranean genn. and subgenn. of Phaleriini, ESPAÑOL COLL Eos **27** p. 33.

Stenosini of S. Africa (key p. 95), FERREIRA Mem. Mus. Lourenço Marques no. 1 1950 pp. 91–97, 2 pls. (1 col.) 2 figs.

Tenebrionidae of the Swiss Mission to the Cameroons, 1947, KASZAB Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 pp. 223–225.

Adesmiini of southern Africa, KOCH Ann. Transv. Mus. **21** pp. 385–417, 3 figs.

Revision of African Opatrini (*Caedius* group) and Crypticini, KOCH Mem. Mus. Lourenço Marques no. 1 1950 pp. 35–84, 6 pls.

Contribution to the knowledge of Venezuelan Tenebrionids, MARCUZZI Atti Mus. Stor. nat. Trieste **18** pp. 61–80, 1 pl. 9 figs.

Adesmia (*Macradesmia*) *servillei* group pp. 121–130; *servillei* Sol., *tenebrosa* Sol. identities discussed p. 122; *s.* **var. n.** *immarginicollis*, **subsp. n.** *chaldaea* Persia p. 124; *cancellata* **subsp. n.** *wahabita* Yemen p. 129; (*M.*) *procera* **subsp. n.** *conjungens* Turkey etc. p. 130, KOCH Ent. Bl. **45–46.**—*A. lurida* Haag (=*sordida* H.) p. 386, KOCH Ann. Transv. Mus. **21.**

Afrotenebrio **subgen. n.** (type *guineensis* Imh.) see *Tenebrio.*

Agymnonyx caesarea Mindanao p. 156, *cuprea* Luzon p. 158 **spp. n.** figs., KULZER Ent. Arb., Munich **2.**

Alogenius robinsoni **sp. n.** p. 410; *favosus* **subsp. n.** *sculptus*; *cavifrons* **subsp. n.** *semigranulatus* p. 411 S. Africa, KOCH Ann. Transv. Mus. **21.**

Amarygmus hasselti, *rimosus*, *phungi* see *Platolenes.*

Androsus further description; *javanus* Java p. 477, *subfasciatus* p. 479, *fastuosus* p. 480, *corporaali* (also Philippines) p. 481 Sumatra, *convexus* New Guinea p. 483 **spp. n.**; key to Indo-Australian spp. p. 484 figs., KULZER Ent. Arb., Munich **2.**—*A. neomedinus* see *Pseudandrosus.*

Anethas teixeirai **sp. n.** Transvaal p. 92 figs., FERREIRA Mem. Mus. Lourenço Marques no. 1 1950.

Antarcticodomus **gen. n.** (Helopinae), *fallai* **sp. n.** Campbell & Auckland Is. p. 39 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

Anthrenopsis **subgen. n.** (type *scriptipennis* Fairm.) see *Microcrypticus.*

Apteroseriscius **subgen. n.** (type *espanoli* sp. n.) see *Pseudoseriscius.*

Arthrodosis menestriesi p. 232, *semenovi* p. 233 **spp. n.** Iran, BOGACHEV Ent. Obozr. **31** 1950.

Arturium **gen. n.** for *Melanolophus ater* Wat. (type), *Phrynocolus crispatus* Fairm. and other spp. p. 82, KOCH Atti Soc. ital. Sci. nat. **90.**

Asida (*A.*) *cossyphoides* **sp. n.** Morocco p. 315, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**—*A.* (*Granulasida*) *mater* **ff. n.** *gasulli* p. 16, *josefinae* p. 17 Balearic Is. figs., ESPAÑOL COLL Eos **27.**

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Australoseriscius **subgen. n.** (type *explorator* Geb.) see *Pseudoseriscius.*

Belopus (*Centorus*) *reymondi* **sp. n.** Moroccan Sahara p. 76, ANTOINE C.R. Soc. Sci. nat. Maroc **1951** no. 6.

Blaps key to spp. of Lower Austria p. 152, MADER Ent. NachrBl. öst. schweiz. Ent. **3.**

Blapstinus opatrinoides **subsp. n.** *lagunillae*; *brunnipes* p. 61, *paraguanae* p. 64, *meridensis* p. 66, *margaritensis* p. 68, *relictus* p. 70, *llanensis* p. 72, *orchilensis* p. 74 **spp. n.** Venezuela figs., MARCUZZI Atti Mus. Stor. nat. Trieste **18.**

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Caedius tessellatus **sp. n.** Port. E. Africa p. 44, KOCH Mem. Mus. Lourenço Marques no. 1 1950.

Caenocrypticus (*Thorictophasis* **subgen. n.** p. 80), (*T.*) *bushmanicus* p. 81, (*T.*) *deserticus* p. 82, (*T.*) *phaleroides* p. 84 **spp. n.** S. Africa, Koch t.c.

Capicrypticus **subgen. n.** (type *capensis* sp. n.) see *Lamprocrypticus*.

Cechenosternum semirufum Fairm. from *Platydema* p. 73 ; *pintoi* Port. E. Africa p. 77, *formosum* Tanganyika, Belg. Congo p. 79 **spp. n.**, Koch Mem. Mus. Lourenço Marques no. 1 1950.

Ceradesmia membranacea **sp. n.** Belg. Congo p. 405, Koch Ann. Transv. Mus. **21.**

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Clitobius opacus **sp. n.** Canary Is. p. 12, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Corinta **gen. n.** (Opatrini) p. 36, *litoralis* **sp. n.** Port. E. Africa p. 37, Koch Mem. Mus. Lourenço Marques no. 1 1950.

Cornopterus **gen. n.** (Opatrini), *wykehami* **sp. n.** S. & Port. E. Africa p. 42, Koch t.c.

Crypticus subnitens **sp. n.** Canary Is. p. 12, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Cyclocleres zaianus **sp. n.** Morocco p. 100, Antoine Bull. Soc. Sci. nat. Maroc **30.**

Cylindronotus tenuipunctatus **sp. n.** Canary Is. p. 12, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Delognatha prope **sp. n.** Venezuela p. 303 figs., Marcuzzi Arch. zool. (ital.) **35** 1950.

Diaphanidus granulosus Uzbekistan p. 233, (*Pseudodiaphanidus* **subgen. n.** p. 234) *robustus* Iran p. 235 **spp. n.**; *volganus* Sem. & Bog. a subsp. of *semenovi* Reitt. p. 234, Bogachev Ent. Obozr. **31** 1950.

Diplocyrtus semihispidus **sp. n.** Morocco p. 319, Antoine Bull. Soc. Sci. nat. Maroc **29.**

Epiphysa louwrensi p. 411, *barbata* p. 412, *latisterna* p. 413 (with **subsp. n.** *pruinosa* p. 416) **spp. n.** S. Africa, Koch Ann. Transv. Mus. **21.**

Erodius of Morocco pp. 195–230, systematic and synonymic list p. 224, key p. 226 ; *graniventris* **var. n.** *chouberti* p. 199 ; *granipennis* **abb. n.** *incostatus*, *allardi* p. 208, **varr. n.** *deplanatus* p. 210, *reymondi*, *minimus* p. 211, **subsp. n.** *reitteri* p. 213 ; *antoinei* **sp. n.** p. 214 ; *tangerianus* **var. n.** *pseudocarinatus* p. 218 ; *zophosoïdes* **var. n.** *melillensis* p. 222, **subsp. n.** *marrakensis* p. 223 Morocco figs., Kocher Bull. Soc. Sci. nat. Maroc **30.**—*E.* (*Dirosis*) *semenovi* **sp. n.** Iraq p. 230 fig., Bogachev Ent. Obozr. **31** 1950.

Glabrasida tuberculipennis **subsp. n.** *sarroensis* Morocco p. 314, Antoine Bull. Soc. Sci. nat. Maroc **29.**

Gonocephalum parvithorax Senegal, Somalia p. 215, *simplicipes* Sudan p. 217 **spp. n.** figs., Gridelli Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.—*G. adpressiforme* **sp. n.** Philippines, Hawaii, Canton I. p. 182, Kaszab Ann. Mag. nat. Hist. (12) **4.** —*G. angustum* **sp. n.** Canary Is. p. 11, Lindberg Comment. biol., Helsingf. **10** 1950 no. 18.

Hegeter grancanariensis p. 8, *proximus*, *excisus*, *intercedens* p. 9 **spp. n.** Canary Is., Lindberg t.c.

Heliopathes balearicus **sp. n.** Balearic Is. p. 21 fig., Español Coll Eos **27.**

Heliophilus bergmanni **sp. n.** Morocco p. 318, Antoine Bull. Soc. Sci. nat. Maroc **29.**—*H. rectangularis* **sp. n.** Morocco p. 97, Antoine op. cit. **30.**

Helopelius subsinuatus **sp. n.** Morocco p. 318, Antoine op. cit. **29.**

Lamprocrypticus (*Capicrypticus* **subgen. n.**) p. 55, (*C.*) *capensis* p. 56, (*C.*) *pilosulus* p. 58, (*C.*) *andreae* p. 59 (with **var. n.** *secretans*), (*C.*) *seminitidus* p. 61, (*C.*) *pulverulentus* p. 62, (*C.*) *apicalis*, (*C.*) *simplicicollis* p. 63 **spp. n.** S. Africa figs., Koch Mem. Mus. Lourenço Marques no. 1 1950.

Lineocrypticus **gen. n.** (Crypticini) p. 52, *hessei* **sp. n.** S. Africa p. 53, Koch t.c.

Machlasida variesculpta **sp. n.** Morocco p. 314, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

Mamorina **gen. n.** (Helopinae) p. 98, *sulcaticeps* **sp. n.** Morocco p. 99 fig., ANTOINE t.c.

Megatenebrio **subgen. n.** (type *giganteus* Fairm.) see *Tenebrio.*

Melambius (*M.*) *rotroui* p. 315 (with **ab. n.** *marginalis*), (*Hoplariobius*) *rugatithorax* p. 316, (*H.*) *meridionalis*, (*H.*) *declivis* p. 317 **spp. n.** Morocco, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

Melanolophus ater see *Arturium.*

Metriopus kunenensis **sp. n.** S. Africa p. 407, KOCH Ann. Transv. Mus. **21.**

Microcrypticus (*Anthrenopsis* **subgen. n.** p. 74), (*M.*) *immaculatus* **sp. n.** Belg. Congo, E. Africa p. 75, KOCH Mem. Mus. Lourenço Marques no. 1 1950.

Mitotagenia gridelli **subsp. n.** *rhodesiana* S. Rhodesia p. 94 fig., FERREIRA Mem. Mus. Lourenço Marques no. 1 1950.

Neotheca further description p. 130, KULZER Ent. Arb., Munich **2.**

Nesotes tuberculipennis, afer characters p. 318, ANTOINE Bull. Soc. Sci. nat. Maroc **29.**

Nicandra conspersus further description p. 564 ; *zumpti* p. 565, *bicolor* p. 566, *rufipennis* p. 569 Cape Province, *latipalpis* p. 567, *ovalis* p. 570 S.W. Africa, *gebieni* Angola p. 571 **spp. n.** figs., KULZER Ent. Arb., Munich **2.**

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Phaleria pujeti **sp. n.** Balearic Is. p. 27 figs., ESPAÑOL COLL Eos **27.**

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Phrynocolus (*Spinophrynus* p. 90, *Phrynophanes* p. 92, *Phrynocolopsis* p. 93 **subgenn. n.**) ; (s. str.) *spinolai* **subspp. n.** *wilkei* Cameroons, *emarginatus* S. Africa p. 88 ; (s. str.) *theryi* Sudan etc., (s. str.) *felinus* Fr. Congo p. 89, (*S.*) *schoutedeni* Belg. Congo p. 92 **spp. n.** figs., KOCH Atti Soc. ital. Sci. nat. **90.**—*P. crispatus* and other spp. see *Arturium.*

Phrynophanes **subgen. n.** (type *gredleri* Haag) see *Phrynocolus.*

Physosterna aculeata **subsp. n.** *deflexa* p. 386 ; *globosa* **subsp. n.** *scherzi* p. 387 ; *armatipes* **sp. n.** p. 388 S. Africa ; *bullata* Pér. from *Onymacris* p. 390, KOCH Ann. Transv. Mus. **21.**

Pimelia (*Amblyptera*) *fornicata* **subsp. n.** *rifensis* Morocco p. 96 fig., ANTOINE Bull. Soc. Sci. nat. Maroc **30.**—*P. rugulosa* **subsp. n.** *apula* Italy p. 162, GRIDELLI Mem. Biogeogr. Adriat. **1** 1950.—*P. pseudoradula* (with **subsp. n.** *asperata*), *parvula* (with **subsp. n.** *albohumeralis*) **spp. n.** Canary Is. p. 10, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

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Platolenes hasselti Fairm., *rimosus* Bl., *phungi* Pic from *Amarygmus* ; *latipes* p. 547, *pulcher* p. 548, *coloratus* p. 550, *striatus* p. 552, *planipennis* p. 557 Philippines, *aeneus* Perak p. 553, *laevis* p. 554, *incultus* p. 558 Java, *kinabaluensis* Borneo p. 556 **spp. n.**; key to Indo-Australian spp. p. 559 figs., KULZER t.c.

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Pseudhelops wenhami p. 40, *eastoni* p. 42 **spp. n.** Auckland Is. figs., BROOKES Bull. Cape Exped. Ser. no. 5.

Pseudodiaphanidus **subgen. n.** (type *robustus* sp. n.) see *Diaphanidus*.

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Scleron fernándezi **sp. n.** Canary Is. p. 11, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Selinus monardi **sp. n.** Cameroons p. 224, KASZAB Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Sepidium wagneri **subsp. n.** *macrotys* Morocco p. 94, ANTOINE Bull. Soc. Sci. nat. Maroc **30**.

Spinophrynus **subgen. n.** (type *spinipennis* Gebien) see *Phrynocolus*.

Spyrathus zarudnyi **sp. n.** Iran p. 235, BOGACHEV Ent. Obozr. **31** 1950.

Stenocara phalangium **subsp. n.** *rufofemorata* p. 394; *fitzsimonsi* p. 395, *magnophthalma* p. 397, *bethanica* p. 400, *kalaharica* p. 401, *machado* p. 404 **spp. n.**; *aenescens* **subsp. n.** *dilaticornis* p. 403; *velox* Pér. (=*araneipes* Geb.) p. 395; *brevicollis* Haag (=*placita* Pér., *tuberculifera* Geb.) p. 401, KOCH Ann. Transv. Mus. **21**.

Stenosis lafanechèrei **sp. n.** Morocco p. 94 fig., ANTOINE Bull. Soc. Sci. nat. Maroc **30**.

Stenothesilea **gen. n.** (Cnodalonini) p. 131, *cylindriformis* **sp. n.** Luzon p. 132 figs., KULZER Ent. Arb., Munich **2**.

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Tenebrio (*Megatenebrio* p. 221, *Afrotenebrio*, p. 230 **subgenn. n.**); *gebieni* p. 224, *pseudonitidulus* p. 226 **spp. n.** Belg. Congo figs., GRIDELLI Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.—*T. clypealis* see *Villiersia*.

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Thorictophasis **subgen. n.** (type *deserticus* sp. n.) see *Caenocrypticus*.

Tribolium destructor pupa pp. 122, 125 figs., HAVELKA & WINKLER Ent. Listy **13**.

Trigonoscelis fasciculitarsis **subsp. n.** *borosi* Turkmenia p. 2 figs., KASZAB Folia ent. hungar. (N.S.) **4**.

Villiersia **gen. n.** for *Tenebrio clypealis* Geb. (type) p. 227; *muelleri* **sp. n.** Eritrea, Sudan p. 228 fig., GRIDELLI Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

CISTELIDAE (ALLECULIDAE).

Alleculidae of Peru, BORCHMANN Beitr. Fn Perus Bd. 1 1941 pp. 318–321, 326–327 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 304–308, 313–314].

Alleculidae of USSR (keys p. 15), OGLOBLIN & ZNOĬKO Fn SSSR Col. **18** 1950 no. 8, 134 pp., 163 figs.

Allecula ainaensis **sp. n.** Peru p. 318 fig., BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 p. 304].

Cteniopinus borchmanni **sp. n.** Tibet p. 43, OGLOBLIN & ZNOĬKO Fn SSSR, Col. **18** 1950 no. 8.

Cteniopus (*Ctenioposomus*) *persicus* **sp. n.** W. Persia p. 72, OGLOBLIN & ZNOĬKO t.c.

Lobopoda diehli **sp. n.** Peru p. 319, BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 p. 305].

Micromophlus **subgen. n.** see *Omophlus*.

Mycetocharina marocana **sp. n.** Morocco p. 75, PIC C.R. Soc. Sci. nat. Maroc **1951** no. 6.

Omophlina reitteri **sp. n.** Tajikistan p. 34, OGLOBLIN & ZNOĬKO Fn SSSR, Col. **18** 1950 no. 8.

Omophlus (*Micromophlus* p. 124, *Paromophlus* p. 125 **subgenn. n.**); (*Odontomophlus*) *longipleuris* p. 89, (*P.*) *armeniacus* p. 126 Armenia, (*O.*) *kurda* Irak p. 97, (s. str.) *anthracinus* Dagestan p. 102, (s. str.) *pollinosus* (also S.E. Persia) p. 104, (s. str.) *caspius* p. 105, (s. str.) *gracilis* p. 123 S. Caspian, (s. str.) *oblongus* Transcaucasia p. 117, (s. str.) *turcomanicus* Turkmenia p. 118, (s. str.) *kuznetzovi* S.E. Persia p. 120 **spp. n.** figs., OGLOBLIN & ZNOĬKO t.c.

Paromophlus **subgen. n.** see *Omophlus*.

Xystropus ainaensis **sp. n.** Peru, Bolivia p. 320, BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 p. 309].

NILIONIDAE.

Nilionidae of Peru, BORCHMANN Beitr. Fn Perus Bd. 1 1941, pp. 321, 327–328 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 308, 314].

LAGRIIDAE.

Lagriidae of Peru, BORCHMANN Beitr. Fn Perus Bd. 1 1941 pp. 217, 323–326 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 304, 310–312].

Lopholagria crampeli **var. n.** *monardi* Cameroons p. 219, PIC Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Porrolagria liberiensis **sp. n.** Liberia p. 1101, PIC Bull. Inst. franç. Afr. noire **13**.

Xenogena robusta **sp. n.** Ivory Coast p. 206, PIC Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

OEDEMERIDAE.

Revision of Nearctic Oedemeridae (check list p. 370), ARNETT Amer. Midl. Nat. **45** pp. 257–391, 14 pls.

Preliminary key to Neotropical genera of Oedemeridae, ARNETT Coleopt. Bull. **5** pp. 57–59.

Alloxacis megateles p. 346, *pseudosericea* p. 348, *nesiotes* p. 349, *ignota* p. 350 **spp. n.** Florida, ARNETT Amer. Midl. Nat. **45**.

Asclera signaticollis see *Xanthrochroa erythrocephala*; *obscura* see *Eumecomera*.

Chrysanthia repanda see *Heliocis*.

Ditylus gracilis Lec. (=*vestitus* Lec.) p. 288; *quadricollis* Lec. (=*consors* Lec.) p. 290, ARNETT Amer. Midl. Nat. **45**.—*D. bicolor*, *cyanipennis* see *Eumecomera*.

Eumecomera **gen. n.** for *Asclera obscura* Lec. (type), *Ditylus bicolor* Horn, *D. cyanipennis* H.) p. 298, ARNETT Amer. Midl. Nat. **45**.

Heliocis **gen. n.** for *Chrysanthia repanda* Horn p. 295, ARNETT t.c.

Nacerda rufiventris **ab. n.** *radnensis* Carpathians p. 152, CSIKI Acta biol. Acad. Sci. hung. **2**.

Nacerdes lateralis see *Xanthrochroa erythrocephala*.

Oedemera erythrocephala see *Xanthrochroa*.

Oxacis (*Oxycopis*, *Paroxacis* **subgenn. n.** p. 305); (s. str.) *pallida* Lec. (=*sororia* Horn, *grisea* H.) p. 310; (*Oxycopis*) *luteostriata* p. 327, (*O.*) *mcdonaldi* p. 328, (*O.*) *dietrichi*, *mariae* p. 330, (*P.*) *recendita* p. 338, (*P.*) *interrita* p. 339 **spp. n.** U.S.A., ARNETT Amer. Midl. Nat. **45**.

Oxycopis **subgen. n.** (type *notoxoides* F.) see *Oxacis*.

Paroxacis **subgen. n.** (type *lucana* Lec.) see *Oxacis*.

Xanthrochroa erythrocephala Germ. (=*Nacerdes lateralis* Mels., *Asclera signaticollis* Hald.) from *Oedemera* p. 276, ARNETT Amer. Midl. Nat. **45**.

ANTHICIDAE.

Anthicidae of Abyssinian Expeditions 1926–27, 1948–49, PIC Ann. Mag. nat. Hist. (12) **4** pp. 125–136, 4 figs.

Anthicus revision of French spp. of *fenestratus* group pp. 143–153, key p. 144 figs., BONADONA Rev. franç. Ent. **18**.—*A. reymondi*, (*Immicrohoria*) *lavocati* **spp. n.** Moroccan Sahara p. 37, PIC C.R. Soc. Sci. nat. Maroc **1951** no. 3.—*A.* (*Clavicomus*) *semiviridis*, (*Cordicomus*) *cooperi*, (*Immicrohoria*) *marginicollis* p. 130, *alternaticornis* p. 132, *tolanus* (with **varr. n.** *gugheensis* p. 133, *damotanus*, *scotti* p. 134) **spp. n.** Abyssinia figs., PIC Ann. Mag. nat. Hist. (12) **4**.

Aulacoderus alitienensis **var. n.** *breveapicalis* Abyssinia p. 136, PIC t.c.

Endomia minuta **var. n.** *scotti* Abyssinia p. 136, PIC t.c.

Notoxus scotti **sp. n.** Abyssinia p. 126 figs., PIC t.c.

HYLOPHILIDAE.

Aderus (*Hylophilus*) *villiersi* **sp. n.** Ivory Coast p. 1101, PIC Bull. Inst. franç. Afr. noire **13**.

MELOIDAE.

Meloidae of Peru, BORCHMANN Beitr. Fn Perus Bd. 1 1941 pp. 313–317, 321–323 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 300–304, 308–310].

Revision of Cerocomini (key to genn. p. 255, list of spp. p. 270), KASZAB Acta biol. Acad. Sci. hung. **2** pp. 255–274.

Alosimus revision of Palaearctic spp. pp. 138–151, key p. 139, list p. 148; *somalicus* Somaliland p. 146, *latitarsis* Armenia p. 148 **spp. n.**; *armeniacus* **var. n.** *babadjanidesi* Caucasus p. 147, KASZAB Ann. hist.-nat. Mus. hung. (N.S.) **1**.

Cerocoma latreillei Baudi (=*mühlfeldi* ab. *collaris* Reitt.); *azurea* Reitt. reduced to var. of *syriaca* Ab.; *adamovichiana* Pill. & Mitterp. (= *graeca* Mar. p. 259) a good sp.; *malatyensis* Kasz. a good sp. and not ab. of *mühlfeldi*; *barthelemii* Baudi a good sp. and not syn. of *mühlfeldi*; *bodemeyeri* Reitt. reduced to ab. of *kunzei*; *vahli* subsp. *tarudanti* Escal. an ab. of *kunzei*; *mühlfeldi* var. *pátkaii* Kasz. an ab. of *kunzei*; *simplicicornis* Reitt. raised to sp. and not var. of *dahli*; *gloriosa* Muls. (=*vasvárii* Kasz.) p. 258; *macedonica* Mar. reduced to ab. of *kunzei*; (*Metacerocoma*, *Mesocerocoma*, *Cerocomina* **subgenn. n.**) p. 259; key to West and Central Asian, N. African and European spp. p. 260; *scovitzi* **subsp. n.** *mařani* Mesopotamia; *barthelemii* **var. n.** *haifensis*; *gloriosa* **ab. n.** *jodina* Syria p. 268; *kunzei* **ab. n.** *violacea* Caucasus p. 269, KASZAB Acta biol. Acad. Sci. hung. **2**.

Cerocomina **subgen. n.** (type *vahli* F.) see *Cerocoma*.

Ceroctis matetsiensis **sp. n.** S. Africa p. 434 fig., KASZAB Ann. Transv. Mus. **21**.

Decapotoma lunata variation p. 434 figs., KASZAB t.c.

Diaphorocera key to N. African spp. p. 269, KASZAB Acta biol. Acad. Sci. hung. **2**.

Epicauta dilaticornis Peru p. 313 [200], *laticeps* Bolivia p. 314 [301] **spp. n.**, BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2, pp. in square brackets].—*E. canescens* **var. n.** *obscurepubens* Ivory Coast p. 206, PIC Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.—*E. cicatrix* **sp. n.** Texas p. 131 fig., WERNER Psyche **57**.

Linsleya **gen. n.** for *Lytta convexa* Lec. (type), *L. sphaericollis* Say, *L. compressicornis* Horn, *L. infidelis* Fall, *L. suavissima* Wellm. p. 58, MACSWAIN Pan-Pacif. Ent. **27**.

Lytta mirifica New Mexico p. 133, *navajo* Arizona p. 134 **spp. n.** figs., WERNER Psyche **57**.—*L. convexa*, *sphaericollis*, *compressicornis*, *infidelis*, *suavissima* see *Linsleya*.

Meloë fernandezi **sp. n.** Canary Is. p. 252 figs., PARDO ALCAIDE Eos **27**.

Mesocerocoma **subgen. n.** (type *scovitzi* Fald.) see *Cerocoma*.

Metacerocoma **subgen. n.** (type *schreberi* F.) see *Cerocoma*.

Nemognatha mimula **sp. n.** Peru p. 316, BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but 6 copies

destroyed in the War; re-issued in 1951 as Bd. 2 p. 303].—*N. vansoni* **sp. n.** S. Africa p. 432 fig., KASZAB Ann. Transv. Mus. **21.**—*N. cantharidis* p. 76, *hurdi* p. 77, *soror* p. 78 **spp. n.** California, MACSWAIN Pan-Pacif. Ent. **27.**—*N. risbeci* **sp. n.** Senegal p. 206, PIC Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Oenas key to Palaearctic spp. p. 275; *pseudoafer* Egypt, *armeniacus* Armenia **spp. n.** p. 278 figs., KASZAB Acta biol. Acad. Sci. hung. **2.**—*O. bicolor*, *melanura* see *Prionotolytta*.

Paractenodia damarensis **sp. n.** S. Africa p. 433 figs., KASZAB Ann. Transv. Mus. **21.**

Prionotolytta bicolor Lap., *melanura* Er. from *Oenas* p. 275, KASZAB Acta biol. Acad. Sci. hung. **2.**

Psalydolytta monardi **sp. n.** (with **var. n.** *albomarginata*) Cameroons p. 219, PIC Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.

Pseudomeloe titschacki **sp. n.** Peru p. 315, BORCHMANN Beitr. Fn Perus Bd. 1 1941 [all but six copies destroyed in the War; re-issued in 1951 as Bd. 2 p.302].

Rhampholyssa key to Central Asian spp. p. 257, KASZAB Acta biol. Acad. Sci. hung. **2.**

Sitaris fitzsimonsi **sp. n.** S. Africa p. 429 fig., KASZAB Ann. Transv. Mus. **21.**

Zonabris holosericea **var. n.** *monardi; rufitarsis* **var. n.** *sakdjeensis* p. 219; *biseptemmaculata* **varr. n.** *ngaouyanga*, *monardiana* p. 220 Cameroons, PIC Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1.—*Z. villiersi* **sp. n.** Ivory Coast p. 245, PIC Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Zonitis halli **sp. n.** Kenya p. 166, KASZAB Ann. Mag. nat. Hist. (12) **4.**—*Z. aureus*, *maculicollis* p. 73, *propinqua* p. 74 **spp. n.** U.S.A., MACSWAIN Pan-Pacif. Ent. **27.**

Zonitopsis jansei **sp. n.** Port. E. Africa p. 433 figs., KASZAB Ann. Transv. Mus. **21.**

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Mordella (*M.*) *caprai* **sp. n.** Albania p. 7 figs., FRANCISCOLO Boll. Soc. ent. ital. **81.**

Pselaphostena key to spp. p. 61; *praetoriana* p. 65, *diversicornis* p. 67, *van-soni* p. 69, *longepalpalis* p. 70, *antennata* p. 74, *rhodesiensis* (also S. Rhodesia, Port. E. Africa) p. 72 **spp. n.**; *arnoldi* **var. n.** *quadristrigosa* p. 67 S. Africa figs., FRANCISCOLO Atti Soc. ital. Sci. nat. **90.**

Stenalia key to known spp. p. 94; *variipennis* (with **f. n.** *picipennis*) p. 98, *parva* p. 100, *nigra* p. 102 **spp. n.** E. Africa fig., ERMISCH Mem. Soc. ent. ital. **30.**

RHIPIPHORIDAE.

Rhipiphorids of California, LINSLEY & MACSWAIN Bull. Calif. Ins. Surv. **1** pp. 79–86, 1 pl.

Blattivorus margaritae **sp. n.** Armenia 360 fig., RIKHTER Ent. Obozr. **30** 1949.

Egidiella prophetea Reitt. (= *Trichopleurias deserti* Sahlb.) p. 359 (note), RIKHTER t.c.

Macrosiagon senegalense **sp. n.** Senegal p. 207, PIC Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Trichopleurias deserti see *Egidiella prophetea*.

STYLOPIDAE.

Myrmecolacidae of the Philippines (key p. 86), BOHART Wasmann J. Biol. **9** pp. 83–103, 4 pls.

Caenocholax davao **sp. n.** Mindanao p. 93 fig., BOHART Wasmann J. Biol. **9.**

Lychnocolax **gen. n.** p. 95, *mindoro* (type) p. 97, *mindanao* p. 98, *postorbis* p. 100, *ovatus* p. 101, *palpalis* p. 102 **spp. n.** Philippines figs., BOHART t.c.

Myrmecolax furcatus p. 90, *rossi* p. 91, *culionensis* p. 92 **spp. n.** Philippines figs., BOHART t.c.

Pseudoxenos beaumonti **sp. n.** Algeria p. 76 fig., PASTEELS Bull. Ann. Soc. ent. Belg. **87.**

Rhipidocolax **gen. n.**, *retrorsus* **sp. n.** Philippines p. 94 figs., BOHART Wasmann J. Biol. **9.**

Lamellicornia.

Horned beetles, ARROW (edited by W. D. Hincks) iv and 154 pp. 15 pls.

Scarabaeidae laparostictae of Peru, BALTHASAR Beitr. Fn Perus Bd. 1 1941 pp. 337–358 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 322–344].

Catalogue of Colombian Scarabaeids, GACHARNÁ Rev. Acad. colomb. Cient. **8** pp. 221–229, 1 pl.

Scarabaeids of Japan, I, NAKANE Ent. Rev. Japan **5** pp. 97–100, 1 pl. [in Japanese].

PASSALIDAE.

Passalidae of Peru, VAN DOESBURG Beitr. Fn Perus Bd. 1 1941 pp. 329–335 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 315–321].

Cylindrocaulus patalis early stages pp. 27–28 figs., MIYATAKE Trans. Shikoku ent. Soc. **2**.

Popilius disjunctus correct name for horned Passalid in U.S.A. p. 12, HINCKS Col. Bull., Washington, D.C. 5.

LUCANIDAE.

Systenocerus caraboides, cribratus distinct spp. p. 339 figs., TESAŘ Přír. Sborn. Ostrav. Kraje **10** 1949.

COPRIDAE.

Onitini of Parc nat. Upemba, Belg. Congo, JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) no. 3, 41 pp. 57 figs.

Brachycopris see *Dichotomius*.

Caccobius shansicus **sp. n.** N. China p. 69, NAKANE Ent. Rev. Japan **5**.

Canthon maldonadoi **sp. n.** Argentina p. 31 figs., MARTÍNEZ Misión Estud. Pat. reg. argent. **22** no. 79.—*C. bifurcatus* Robinson (=*juanae* Martínez) p. 23; *daguerrei* **sp. n.** Argentina p. 24 figs., MARTÍNEZ op. cit. **22** no. 80.

Cephagonus see *Dichotomius* (*Selenocopris*).

Chironitis audens Pér. (=*damarensis* Felsche) p. 35 (note), JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) no. 3.

Deltochilum (*Deltohyboma*) *sericeum* Paulian further description p. 27, MARTÍNEZ Misión Estud. Pat. reg. argent. **22** no. 80.

Dichotomius Hope (=*Pinotus* Erichs., *Brachycopris* Hald., *Selenocopris* Burm.); subgen. *Selenocopris* Burm. (=subgen. *Cephagonus* Lued.), *bicuspis* Germ. designated type; *Luederwaldtinia* **subgen. n.** p. 139; *triangulariceps* Blanch. (=*gibbosus* Lued.) p. 141; (*S.*) *bicuspis* Germ. (=(*S.*) *transiens* Lued.) p. 142, MARTÍNEZ An. Soc. cient. argent. **152**.

Luederwaldtinia **subgen. n.** (type *nisus* Ol.) see *Dichotomius*.

Onitis upembanus p. 15, *mniszechianus* p. 30, *uncinatoides* p. 33 **spp. n.** Belg. Congo; *perturbator* Pér. (=*coeruleatus* Gillet) p. 20; *malleatus* ♂ p. 21 figs., JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) no. 3.—*O. humerosus* **abb. n.** *violaceipennis, viridipennis* Moravia p. 166, MIKŠIĆ Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950.

Onthophagus vitulus **ab. n.** *humeralis* Moravia, Erivan p. 167, MIKŠIĆ t.c.

Pedaridium mansosotoi **sp. n.** Argentina, Paraguay p. 35 fig., MARTÍNEZ Misión Estud. Pat. reg. argent. **22** no. 79.

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Scarabaeus variolosus **ab. n.** *fuscopilosus* Jugoslavia p. 159, MIKŠIĆ Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950; God. biol. Inst. Sarajevu **2** (1949) 1950 p. 121.

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Uroxys variabilis **sp. n.** Peru p. 139, ROBINSON Ent. News **62**.

APHODIIDAE.

Revision of Belgian Aphodiinae, JANSSENS Mém. Inst. Sci. nat. Belg. no. 115 pp. 20–127 figs.

Aphodius laevigatus Hal. (=*goffi* Cartw.) valid sp. p. 29, CARTWRIGHT Coleopt. Bull. **5**.—*A.* (*Plagiogonus*) *shirahatai* N. China, (*Acrossus*) *asahinai* p. 70, (*Volinus*) *okadai* p. 71 Japan **spp. n.**, NAKANE Ent. Rev. Japan **5**.

Ataenius costulifer p. 354 [340], *icanus* p. 355 [341] **spp. n.** Peru, BALTHASAR Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2, pp. in square brackets].—*A. punctricollis* Lec. (=*inops* Horn); *lobatus* Horn (=*laeviventris* Horn) p. 29, CARTWRIGHT Coleopt. Bull. **5.**

Euparia costulata, ovalis see *Lomanoxia.*

Heptaulacus obenbergeri **sp. n.** Mongolia p. 146; key to spp. p. 148, BALTHASAR Acta Soc. ent. Čsl. **48.** —*H. tesaři* see *Renaudius.*

Lomanoxia **gen. n.** for *Euparia costulata* Harold (type), *E. ovalis* Schmidt p. 29 figs., MARTÍNEZ Misión Estud. Pat. reg. argent. **22** no. 80.

Lorditomaeus pauliani **sp. n.** E. Africa p. 163, ENDRÖDI Ann. hist.-nat. Mus. hung. (N.S.) **1.**

Neosaprosites **gen. n.**, *cylindricus* **sp. n.** New Guinea p. 162, ENDRÖDI t.c.

Renaudius **gen. n.** for *Heptaulacus tesaři* Paul. p. 153, BALTHASAR Acta Soc. ent. Čsl. **48.**

Saprosites birói p. 158, *dudichi* p. 159, *balthasari* p. 160, *fodori* p. 161 **spp. n.** New Guinea, ENDRÖDI Ann. hist.-nat. Mus. hung. (N.S.) **1.**

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Horpnus **subgen. n.** (type *ellenbergeri* sp. n.) see *Orphnus.*

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Pachyorphnus **subgen. n.** (type *subfoveatus* Fairm.) see *Orphnus.*

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AEGIALIIDAE.

Revision of Belgium Aegialiinae, JANSSENS Mém. Inst. Sci. nat. Belg. no. 115 pp. 15–19 figs.

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Brahminella **subgen. n.** (type *agnella* Fald.) see *Brahmina*.

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Chioneosoma (*Leucoschema*) *arnoldii* **sp. n.** Tajikistan p. 430 figs., MEDVEDEV Fn SSSR, Col. **10** no. 1.

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Gynexophylla **subgen. n.** (type *laticollis* Lewis) see *Polyphylla*.

Holotrichia (s. str.) *similis* N. China p. 299, (s. str.) *ussuriensis* p. 305, (s.str.) *infantula* p. 308 Russian Far East **spp. n.** figs., MEDVEDEV Fn SSSR, Col. **10** no. 1.—*H. titanis* see *Eotrichia*.

Homaloplia marginata **ab. n.** *nigra* Dalmatia p. 160, MIKŠIĆ Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950; God. biol. Inst. Sarajevu **2** (1949) 1950 p. 121.

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Mesopolyphylla **subgen. n.** (type *irrorata* Gebl.) see *Polyphylla*.

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Rhizotrogus (*Miltotrogus*) *transcaucasicus* W. Transcaucasia p. 363, (*M.*) *intermedius* Azerbaijan p. 364 **spp. n.** figs., MEDVEDEV Fn SSSR, Col. **10** no. 1.—*R.* (*Pseudoapterogyna*) *syrtanus* **sp. n.** Tunisia p. 156 figs., NORMAND Rev. franç. Ent. **18.**—*R. lautiusculus* **ab. n.** *impressithorax* Jugoslavia p. 161, MIKŠIĆ Glasn. hrv. prirodosl. Društva, Zagreb (2B) **2** 1950; God. biol. Inst. Sarajevu **2** (1949) 1950 p. 122 fig.

Xerasiobia **subgen. n.** (type *albus* Pall.) see *Polyphylla*.

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Anisoplia Bulgarian spp. pp. 334–339, ZAHARIEVA-STOILOVA Bull. Inst. zool. Acad. bulg. Sci. **1.**—*A. leucaspis* **subsp. n.** *vseteckai* Lebanon p. 235 figs., PILLERI Eos **27.**

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Callichloris (*Epicallichloris* **subgen. n.**) *alticola* Bolivia p. 116, (*C.*) *laelaps* Peru p. 119 **spp. n.** figs., GUTIÉRREZ ALONSO An. Soc. cient. argent. **151.**

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Epicallichloris **subgen. n.** (type *alticola* sp. n.) see *Callichloris*.

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Heterocallichloris **gen. n.**, *bicolor* **sp. n.** Bolivia p. 114 figs., GUTIÉRREZ ALONSO t.c.

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Heteronychus sanctae-helenae Blanch. a valid sp. p. 133, BRITTON Proc. Linn. Soc. N.S.W. **76.**—*H. arator* transferred to *Hybosorus* (Hybosoridae), q.v.

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Euphoria boliviensis Blanchard (=*andina* Schein) p. 35, MARTÍNEZ Misión Estud. Pat. reg. argent. **22** no. 80.

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Paratrichius doenitzi larva, pupa p. 1 figs., MIYATAKE Trans. Shikoku ent. Soc. **2.**

Potosia affinis **ab. n.** *ignicolor*; *angustata* **ab. n.** *dichro* Jugoslavia p. 127 fig., MIKŠIĆ God. biol. Inst. Sarajeva **2** (1949) 1950.

Tropinota squalida **subsp. n.** *canariensis* Canary Is. p. 12, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

CURCULIONIDAE.

Coleoptera of Lower Elbe and Schleswig-Holstein, VIII, Curculionidae, GEBIEN Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. 3–47.

New South American Baridinae, pts. 2 & 4, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96, 78 pp.; no. 102, 78 pp.

Aterpinae of S. America, KUSCHEL Rev. chil. Ent. **1** pp. 205–244, 22 figs.

Curculionidae of the Swiss Mission to the Cameroons, 1947, MARSHALL Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p. 231.

Morphology of Lixini larvae, MELLINI Boll. Ist. Ent. Bologna **18** pp. 345–348.

List of S. American Cryptorrhynchinae described and redescribed by Dr. Carl Fiedler (with list of redescribed Zygopinae), PAPP Ark. Zool. **2** pp. 457–581, 25 figs.

Taxonomy of Entimini, VAURIE Rev. chil. Ent. **1** pp. 148–150, 161–166.

Some Indo-Australian Cossoninae genera, Voss Beitr. Ent., Berl. **1** pp. 77–92, 1 fig.

Chilean Rhynchitinae, Voss Rev. chil. Ent. **1** pp. 175–185, 5 figs.

Acalles campbellicus **sp. n.** Campbell I. p. 64 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

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Amorbaius chrysophylli **sp. n.** Uganda p. 847, MARSHALL Ann. Mag. nat. Hist. (12) **4.**

Ampeloglypter brunescens, *longiclava*, *singularis* p. 61, *vicinus* p. 62, *pilosellus* p. 63 Brazil, *heterosternoides* Colombia p. 62, *laevis* Bolivia, *cayennensis* Fr. Guiana p. 63 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool no. 102.

Anagivenius unidentatus **sp. n.** (with **var. n.** *sanguinicollis*) Brazil p. 18, HUSTACHE op. cit. no. 96.

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Anisorrhamphus minutus **sp. n.** Brazil p. 32, HUSTACHE t.c.

Anopsilus rufitarsis p. 63, *bicolor*, *minutus* p. 64 Brazil, *pusillus* Paraguay, *striatipennis* Argentina, Paraguay, Brazil p. 65, *parvulus* Argentina, *aequatorialis* Ecuador, Colombia p. 66 **spp. n.**, HUSTACHE op. cit. no. 96.

Antesis lineatula p. 35, *rugosipennis* p. 37 Argentina, *claveri* p. 35, *obscura* p. 38 Colombia, *dispersa*, *subnitida* p. 36, *curtipennis* p. 37, *seriata* p. 39 Brazil, *compressirostris* Bolivia p. 37 **spp. n.**, HUSTACHE op. cit. no. 102.

Anthobaris **gen. n.** (Baridinae), *rugosicollis* (type) Argentina p. 54, *denticulata* Brazil p. 55 **spp. n.**, HUSTACHE op. cit. no. 96.

Apolpones **gen. n.** (Baridinae), *rectirostris* **sp. n.** Paraguay p. 43, HUSTACHE op. cit. no. 102.

Archobaris **gen. n.** (Baridinae) p. 36, *undulata* (type), *brachypennis* **spp. n.** Brazil p. 37, HUSTACHE op. cit. no. 96.

Ascopus **gen. n.** (Brachyderinae), *pyriformis* **sp. n.** Ivory Coast, Fr. Guinea p. 323, MARSHALL Bull. Inst. franç. Afr. noire **13.**

Asynonychus bondari **sp. n.** Brazil p. 366 fig., Voss Rev. Ent., Rio de J. **22.**

Atopoxydema **gen. n.** (Cossoninae) p. 89, *impressa* **sp. n.** Madagascar p. 90 fig., Voss Beitr. Ent., Berl. **1.**

Aucklandius sorenseni p. 46, *cupreosus* p. 47, *aterimus* p. 48 (with **subsp. n.** *aucklandicus* p. 49) **spp. n.** Campbell I. figs., BROOKES Bull. Cape Exped. Ser. no. 5.

Austroinsulus **gen. n.** (Hylobiinae), *turbotti* **sp. n.** Auckland I. p. 62 fig., BROOKES t.c.

Bagoidellus sulcirostris **sp. n.** Argentina p. 73, KUSCHEL Rev. chil. Ent. **1.**

Baptobaris gounellei, *brevipennis* p. 55, *curta* p. 57, *rubropectus* p. 58 Brazil, *claveri* Colombia, Bolivia p. 56, *benoisti* Ecuador p. 57 **spp. n.**; *exarata* **var. n.** *semicastanea* Fr. Guiana p. 56 ; *ruficollis* **var. n.** *rufirostris* Argentina, Paraguay p. 58, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Baridius axillaris see *Brachybaris*.

Baris catamarcaensis no locality, *santafea* Uruguay p. 69, *argentinica*, *reflexa* p. 70, *ciliata* (also Paraguay, Uruguay), *rustica* p. 71, *bosqi* (also Brazil) p. 74, *cordobaense* p. 76 Argentina, *violaceoamethystina*, *brasiliense*

p. 72, *fulvoapicata*, *spadicedoidea*, *dispersesquamulata* p. 73, *nemicasa*, *rubricollis* p. 74, *admirabilis* p. 75, *pygidialis* p. 76 Brazil, *morenoi* Ecuador p. 75 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Barypithes microphthalmus see *Barypithoides*.

Barypithoides **gen. n.** for *Barypithes microphthalmus* Hust. p. 243, HOFFMANN Rev. Zool. Bot. afr. **44.**

Blaborhinus revision pp. 1113–1120, key to spp. p. 1114; *orbiferus* Amazonas p. 1117, *semicostatus* Cayenne p. 1118, *bisignatus* Brazil p. 1119 **spp. n.**, FIEDLER Ann. Mag. nat. Hist. (12) **4.**

Bothrobatys key to American spp. p. 995; *niger* Peru p. 998, *peregrinus* Peru, Bolivia p. 999, *nigrofasciatus* p. 1000, *plagiatus* p. 1003, *lateralis* p. 1004, *trifasciatus* p. 1005, *lineaticollis* p. 1007 Brazil, *atrotriangulatus* Trinidad, *jakobi* Paraguay, Brazil p. 1001, *planicollis* Colombia p. 1006, *rugosus* Bolivia p. 1008 **spp. n.**, FIEDLER t.c.

Brachybaris grandis **sp. n.** Argentina, Uruguay; *axillaris* Boh. from *Baridius* p. 65, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Brachyderes politus **sp. n.** Canary Is. p. 18, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Brachyrrhinus ligustici compared with *Liophloeus tessulatus* p. 13, early stages p. 19 figs., MÜHLE & FRÖHLICH Beitr. Ent., Berl. **1.**

Buprestobaris **gen. n.** (Baridinae), *caudata* **sp. n.** Brazil p. 43, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Buskiella scutellata **sp. n.** Fr. Guiana p. 45, HUSTACHE t.c.

Calendra Clairv. & Schell. (= *Sphenophorus* Schoenh. p. 36) revision of spp. of U.S.A. & Mexico pp. 29–186, key p. 53; *mormon* Chitt. (=*distichlidis* C.) p. 64; *graminis* C. (=*subopacus* C., *monterensis* C.) p. 74; *arizonensis* Horn (=*falli* C.) p. 82; *terricola* Champ. (=*reticulatus* Chitt.) p. 87; *holoserica* Chitt. (=*lucedalensis* Satterth.) p. 89; *necydaloides* F. (=*retusus* Gyll.) p. 91; *compressirostris* Say (=var. *obscuripennis* Chitt.) p. 97; *inaequalis* Say (=*contractus* Gyll.) p. 100; *germari* Horn (=var. *pinguis* Chitt.) p. 101; *parvula* Gyll. (=*pumilus* G.) p. 106; *diversa* Chitt. (=*eugenia* Satterth.) p. 112; *venatus* Say & varr. discussed p. 115; *phoeniciensis* Chitt. (=*sequoiae* Van D.) p. 129; *destructor* Chitt. (=*sublaevis* C.) p. 142; *callosa* Ol. (=*jugosus* Chitt.) p. 143; *robustior* Chitt. (=var. *costifer* C.) p. 149; *incongrua* Chitt. (=var. *elephantulus* C.) p. 150; *costipennis* Horn (=*laevigatus* Chitt., *medoraensis* Satterth.) p. 153; *aequalis* Gyll. (=varr. *univitta* Chitt., *scirpi* C.) p. 174; *championi* Mexico p. 81, *cazieri* Texas p. 98 **spp. n.** figs., VAURIE Bull. Amer. Mus. nat. Hist. **98.**

Camopis amplicollis Brazil, *dispersa* Paraguay p. 1, *bosqi* Argentina p. 2 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Campbellorhinus **gen. n.** (Otiorrhynchinae), *seticostatus* **sp. n.** Campbell I. p. 50 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

Catodryobiolus **gen. n.** (Otiorrhynchinae) p. 51, *antipodus* **sp. n.** Auckland I. p. 52 fig., BROOKES t.c.

Catolethrus key to allied Indo-Australian genn. p. 79, Voss Beitr. Ent., Berl. **1.**

Centrinopsimorpha **gen. n.** (Baridinae) p. 27, *singularis* **sp. n.** Ecuador p. 28, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Centrinus quadriguttatus see *Megabaris*.

Cercobaris convexipennis Argentina p. 41, *obtusata* Fr. Guiana, *rugosa* Brazil p. 42 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Ceuthorrhynchus napi early stages p. 492 figs., DOSSE Z. angew. Ent. **32.**—*C. canariensis*, *pseudopollinarius* **spp. n.** Canary Is. p. 19, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.—*C. chlorophanus* characters of an allied sp. p. 73, SMRECZYNSKI Bull. Soc. ent. Fr. **56.**

Chapatiella **gen. n.** (Baridinae) p. 66, *excelsa* **sp. n.** Fr. Guiana p. 67, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Cionus styriacus **sp. n.** Austria p. 124, FRANZ Ent. NachrBl. öst. schweiz. Ent. **3.**

Claveriella **gen. n.** (Baridinae), *violacea* **sp. n.** Colombia p. 6, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Clavimorphus **gen. n.** (Brachyderinae), *leleupi* **sp. n.** Belg. Congo p. 244 figs., HOFFMANN Rev. Zool. Bot. afr. **44.**

Cleogonus revision of American spp. pp. 1201–1218, key p. 1204; *brevirostris* Pernambuco p. 1207, *brasiliensis* p. 1210, *fratellus* (also Mexico) p. 1211, *recticollis*, *marginatus* p. 1212, *lateralis* p. 1215 Brazil, *mixtus* Trinidad p. 1214 **spp. n.**, FIEDLER Ann. Mag. nat. Hist. (12) **4.**

Conarthrosoma **gen. n.** (Cossoninae), *barbata* **sp. n.** Indo-China p. 83, Voss Beitr. Ent., Berl. **1.**

Conarthrus key to spp.; *nigritulus* Reunion, *bambusae* Fr. Congo **spp. n.** p. 85, Voss t.c.

Coryssobaris **gen. n.** (Baridinae) p. 38, *sculpturata* (type), *malefida* **spp. n.** Fr. Guiana p. 39, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Craspedotus Schönh. (=*Neobrachybaris* Hust.) p. 65, HUSTACHE op. cit. no. 102.

Crassiopus **gen. n.** (Baridinae) p. 65, *semicastaneus* **sp. n.** Brazil p. 66, HUSTACHE t.c.

Croatus punctulatus **sp. n.** Fr. Guiana p. 28, HUSTACHE t.c.

Crocidema arizonica **sp. n.** Arizona p. 33, VAN DYKE Pan-Pacif. Ent. **27.**

Cryptorrhynchus lapathi adult p. 247, larva p. 248 figs., ZOCCHI Boll. Ist. Ent. Bologna **18.**

Cyanobaris (*Hedybaris* **subgen. n.**) *elegans* **sp. n.** Fr. Guiana p. 5, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Cylindrothecus tuberculicollis p. 137, *porosicollis* p. 138, *longinus*, *orbiferus* p. 139, *porosithorax* p. 140, *laetus* p. 141 **spp. n.** Brazil, FIEDLER Zool. Anz. **147.**

Cyllophorus bizonatus **sp. n.** S. Nigeria, Sierra Leone, Fr. Guinea p. 324, MARSHALL Bull. Inst. franç. Afr. noire **13.**

Cymatobaris amethystina **sp. n.** Brazil p. 53, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Derelomus bivirgatus **sp. n.** Kenya p. 841, MARSHALL Ann. Mag. nat. Hist. (12) **4.**

Desmobaris **gen. n.** (Baridinae) p. 61, *singularis* **sp. n.** Bolivia p. 62, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Diaphna conversus Hust., *minutus* H., *griseolus* H. from *Endeochetus* p. 845, MARSHALL Ann. Mag. nat. Hist. (12) **4.**

Dissopygus apicalis **sp. n.** Brazil p. 49, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Dorytomodes see *Peristoreus*.

Dythelus **subgen. n.** (type *litus* sp. n.) see *Helodytes*.

Endeochetus teitensis **sp. n.** Kenya p. 844; key to spp. p. 845, MARSHALL Ann. Mag. nat. Hist. (12) **4.**—*E. conversus*, *minutus*, *griseolus* see *Diaphna*.

Entimus revision of Centr. & S. American spp. pp. 147–161, key p. 155 figs., VAURIE Rev. chil. Ent. **1.**

Epipedomorphus **gen. n.** (Baridinae), *argentinensis* (type) Argentina p. 26, *guyanensis* Fr. Guiana p. 27 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Eugnamptoplesius **gen. n.** for *Rhynchites violaceipennis* Fairm. & Germ. p. 184 fig., Voss Rev. chil. Ent. **1.**

Eugymnobaris lazulina Brazil, *bosqi* p. 40, *bruchi* p. 41 Argentina **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Eupagoderes bryanti **sp. n.** Arizona p. 31, VAN DYKE Pan-Pacif. Ent. **27.**

Euscelus (*Meteuscelus*) *spiralis* **sp. n.** Colombia p. 203; *angustatus* characters p.204 fig., PAPP Ent. Ber., Amst. **13.**

Eusemio **gen. n.** for *Metriophilus efraimi* Bond. p. 383; *e.* **subsp. n.** *fluminensis* Brazil p. 384 figs., DA COSTA LIMA Dusenia **1** 1950.

Eutoxus laevisculus **sp. n.** Ecuador p. 48, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Gasterocercus virilis p. 131, *tristis* p. 133 Colombia, *prionobrachis* p. 131, *semicarinatus* (also Colombia), *cryptaspis* p. 132, *rutilitarsis*, *planirostris* p. 134, *sordidus* p. 135, *nigromaculatus* p. 136 Brazil **spp. n.**, FIEDLER Zool. Anz. **147.**

Genevra dentipes **sp. n.** no locality p. 3, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Geonemus of Spain & Balearic Is. pp. 291–298; *palaui* **sp. n.** Spain p. 295 figs., ESPAÑOL Coll Eos **27.**

Giveniopsis setosella Brazil, *nigrescens* Mucuny **spp. n.** p. 45, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Gloeodema spatula key to forms from New Guinea p. 82, Voss Beitr. Ent., Berl. **1.**

Groatus ferrugineus Argentina, *oblongus* p. 29, *humeralis* Brazil, *rubripes* Bolivia p. 30 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Hasidellus **gen. n.** (Baridinae), *robustus* **sp. n.** Fr. Guiana p. 4, HUSTACHE op. cit. no. 96.

Hedybaris **subgen. n.** (type *elegans* sp. n.) see *Cyanobaris.*

Helodytes **gen. n.** for *Lissorhoptrus foveolatus* Duval; (*Dythelus* **subgen. n.**); (*D.*) *litus* Bolivia, Argentina p. 56, (*H.*) *minax* Cuba p. 61, (*H.*) *vatius* p. 62, (*H.*) *edax* p. 63 Argentina, (*H.*) *vorax* Brazil p. 64 **spp. n.**; *striatus* Hust. from *Hydrotimetes* p. 58, KUSCHEL Rev. chil. Ent. **1.**

Hemiphytobius falzonii **sp. n.** p. 54 (with **var. n.** *monticola* p. 55) Italy, SOLARI Boll. Soc. ent. ital. **81.**

Heterosternus gracilicornis, *goyazensis* p. 23, *frontalis*, *sericellus*, *corruptor* p. 24, *canaliculatus*, *macrophthalmus* p. 25, *subtriangularis*, *amictus* p. 26, *pubescens* Brazil, *denieri* Argentina, Paraguay p. 27, *densepunctatus* Argentina p. 28, *foveolatus* Paraguay, *ellipticus* Bolivia p. 29, *metallescens* Peru, *nodieri* Fr. Guiana p. 30 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Hispibaris **gen. n.** (Baridinae), *albosetosa* (type) Argentina p. 67, *onguicularis* Bolivia p. 68 **spp. n.**, HUSTACHE t.c.

Hoffmannista **gen. n.** for *Rhytidophloeus parcegranatus* Fairm. p. 129; *p.* further description p. 130 figs., RICHARD Nat. malgache **3.**

Hycanus robustus **sp. n.** Campbell & Auckland Is. p. 56 fig., BROOKES Bull. Cape Exped. Ser. no. 5.

Hydronomus brevirostris see *Lissorhoptrus.*

Hydrotimetes striatus see *Helodytes.*

Hyponotus key to Indo-Australian and S. African spp.; *tonkinensis* **sp. n.** Tonkin p. 79, Voss Beitr. Ent., Berl. **1.**

Hypsomias pinivorus **sp. n.** Kenya p. 833, MARSHALL Ann. Mag. nat. Hist. (12) **4.**

Ilyodytes **gen. n.** (Bagoini), *lintriculus* (type) p. 66, *lembulus* p. 68 **spp. n.** Argentina figs., KUSCHEL Rev. chil. Ent. **1.**

Laparocerus macrophthalmus, *transversus* p. 16, *curvipes*, *seminitens*, *dissimilis* p. 17 **spp. n.** Canary Is., LINDBERG Comment. biol., Helsingf. **10** 1950 no.18.

Larinus brevis all stages p. 228; *jaceae* larva p. 337, pupa p. 343 figs., MELLINI Boll. Ist. Ent. Bologna **18.**

Leptoschoinella **gen. n.** (Baridinae) p. 43, *sericea*, *humeralis*, *carinirostris* Brazil, *quadripunctata* Fr. Guiana p. 44 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Lichnus bruchi (with **var. n.** *rufipennis* p. 3) p. 2 Argentina, *maculicollis* Paraguay p. 4 **spp. n.**, HUSTACHE t.c.

Limnobaris rufipes see *Trogatiella.*

Linoma oblongula, *coelestis* p. 12, *foveifrons* Argentina, *elongatula* p. 13, *subdentata* p. 17 Bolivia, *cylindrica*, *persimilis*, *nigrocyanea* p. 14, *egena*, *cymba* p. 15, *carinata*, *lucens* p. 16, *subpilosa* Brazil p. 17 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Linomadarus similis, convexipennis p. 51, *monostigma* p. 52, *gounellei* p. 54 Brazil, *boliviensis* Bolivia p. 52, *fulvitarsis* Ecuador, *claveri* Colombia p. 53 **spp. n.**, HUSTACHE op. cit. no. 102.

Liobaridia distinguenda, vicina (also Paraguay) **spp. n.** Argentina p. 11, HUSTACHE op. cit. no. 96.

Liogivenius **gen. n.** (Baridinae), *ebeninus* **sp. n.** Brazil p. 9, HUSTACHE t.c.

Liophloeus tessulatus compared with *Brachyrrhinus ligustici* p. 15, early stages p. 19 figs., MÜHLE & FRÖHLICH Beitr. Ent., Berl. **1.**

Liotheantis vidua Bolivia p. 19, *parvula* Colombia, *pubescens* Fr. Guiana p. 20 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Lissocordylus **subgen. n.** (type *tibialis* Hust.) see *Lissorhoptrus*.

Lissorhoptrus revision of American spp. pp. 23–74; (*L.*) *chapini* p. 33 (with **subspp. n.** *insularis* p. 34, *buchanani* p. 35), (*L.*) *longipennis* (with **subsp. n.** *longitarsis*) p. 37, (*L.*) *lacustris* p. 38 U.S.A., (*L.*) *carinirostris* Bolivia, Argentina p. 39, (*L.*) *mexicanus* p. 41, (*L.*) *erratilis* p. 45 Mexico, (*L.*) *isthmicus* p. 42, (*L.*) *panamensis* p. 49 Panama, (*L.*) *oryzophilus* Canada, U.S.A., Mexico p. 46, (*L.*) *gracilipes* Bolivia p. 51, (*L.*) *lepidus* Bolivia, Argentina **spp. n.**; (*Lissocordylus* **subgen. n.**) p. 52; *brevirostris* Suffr. from *Hydronomus* p. 50 figs., KUSCHEL Rev. chil. Ent. **1.**—*L. oryzae* see *Oryzophagus*; *foveolatus* see *Helodytes*.

Lixomimus **gen. n.** (Cossoninae) p. 91, *interstitialis* **sp. n.** Indo-China p. 92, Voss Beitr. Ent., Berl. **1.**

Lixus elongatus larva p. 283, pupa p. 290 figs., MELLINI Boll. Ist. Ent. Bologna **18.**

Loboderes longicollis **sp. n.** Colombia p. 46, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Lupulina brunnescens Bolivia, *subpubescens* Brazil **spp. n.** p. 44, HUSTACHE op. cit. no. 96.

Madarellus denieri p. 56, *vinaceus* Argentina, *cuneipennis* p. 57, *castaneus, sanguinicollis* Brazil p. 58, *claveri* Colombia p. 59 **spp. n.**, HUSTACHE op. cit. no. 102.

Madaropsides biimpressus **sp. n.** Bolivia, Peru, Ecuador p. 32, HUSTACHE t.c.

Madaropsis circumcinctas [sic] Argentina p. 33, *suturalis, minuta* Brazil p. 34 **spp. n.**, HUSTACHE t.c.

Madarus (*Eumadarus*) *exaratus*, (*E.*) *cribriventris* Brazil, (*E.*) *nemorosus* Ecuador, Peru p. 49, (*E.*) *oblongus*, (?*E.*) *scutellatus* Fr. Guiana p. 50 **spp. n.**, HUSTACHE t.c.

Magdalis Germ. 1817 proposal to Int. Comm. zool. Nomen. for validation pp. 50–54, BRADLEY Bull. zool. Nomen. **2**, GÜNTHER op. cit. **6** pp. 89–90.

Mecinus suturalis Reitt., *circulatus* Mrsh. distinguishing characters p. 74, SMRECZYNSKI Bull. Soc. ent. Fr. **56.**

Mecorhis Billbg. a valid gen. and not syn. of *Rhynchites* p. 100, Voss Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950].

Megabaris **gen. n.** (Baridinae) for *Centrinus quadriguttatus* Boh. p. 45, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Merhynchites (*Neocoenorrhinus* **subgen. n.** p. 182 (note)), Voss Rev. chil. Ent. **1.**

Mesites ater **sp. n.** Canary Is. p. 18, LINDBERG Comment. biol., Helsingf. **10** 1950 no. 18.

Mesothanius sparsus p. 34, *canaliculatus, coelosthernoides* (also Colombia, Bolivia, Argentina) Brazil p. 35, *sexpunctatus* Bolivia p. 36 **spp. n.**, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Methyorrhina squamulata p. 59, *guyanea* Fr. Guiana, *vestita, griseola* Brazil p. 60, *seriatosetulosa* Argentina p. 61 **spp. n.**, HUSTACHE t.c.

Metriophilus efraimi see *Eusemio*.

Microscapus **gen. n.** (Cryptorhynchinae) p. 381, *hymenaeae* **sp. n.** Brazil p. 382 figs., DA COSTA LIMA Dusenia **1** 1950.

Microstrates rufus (also Paraguay), *bipunctatus* **spp. n.** Brazil p. 47, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Mimobaris **gen. n.** (Baridinae), *nitens* **sp. n.** Colombia p. 2, HUSTACHE op. cit. no. 96.

Minurophilus see *Minurus*; *rufescens* see *Minurus testaceus*.

Minurus Waterh. (=*Minurophilus* Voss); *testaceus* Waterh. (=*Minurophilus rufescens* Phil.); *fulvescens* Blanch. reduced to subsp. of *testaceus* Waterh. p. 181; (*Numirus* **subgen. n.** p. 183) figs., Voss Rev. chil. Ent. **1.**

Naupactus variesignatus **sp. n.** Brazil p. 365 figs., Voss Rev. Ent., Rio de J. **22.**

Nematocerus perditor **sp. n.** Kenya p. 839, MARSHALL Ann. Mag. nat. Hist. (12) **4.**

Neoantesis **gen. n.** (Baridinae), *hirticollis* **sp. n.** Brazil p. 39, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Neobrachybaris see *Craspedotus*.

Neocoenorrhinus **subgen. n.** (type *germanicus* Herbst) see *Merhynchites*.

Nertinus denticulatus Brazil, *longirostris* Peru p. 7, *inermis* Bolivia p. 8 **spp. n.,** HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Notesiaspis oblongula Bolivia p. 14, *luteivestis* Brazil, *longithorax* p. 15, *columbica* Colombia, *rubiginosa* Argentina p. 16 **spp. n.,** HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 102.

Numirus **subgen. n.** see *Minurus*.

Oligobaris cavicollis, nitidus p. 48, *brevipilosus* p. 49 **spp. n.** Brazil, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Onychobaris alutacea **sp. n.** Fr. Guiana p. 55, HUSTACHE op. cit. no. 102.—*O. langei* **sp. n.** California p. 35, VAN DYKE Pan-Pacif. Ent. **27.**

Opertes glaber **sp. n.** Fr. Guiana p. 3, HUSTACHE Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 96.

Opseobaris **gen. n.** (Baridinae), *alba* **sp. n.** Argentina p. 9, HUSTACHE op. cit. no. 102.

Oreorrhynchaeus focarilei **sp. n.** Italy p. 51, SOLARI Boll. Soc. ent. ital. **81.**

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Prionids and Cerambycids in Belgrade Nat. Hist. Museum, ADAMOVIĆ Bull. Mus. Hist. nat. Belgrade (B) no. 3–4 1950 pp. 343–357.

Cerambycoids of N. Argentina, I, BOSQ Rev. Soc. ent. argent. **15** pp. 96–107.

Longicornia of China (with many new combinations), GRESSITT Longicornia **2** pp. 1–667, 22 pls., 1 map.

Cerambycoids of Ryukyu Is., GRESSITT Philipp. J. Sci. **79** pp. 193–235, 5 figs.

Supplement to catalogue of Czechoslovakian Cerambycidae, HEYROVSKÝ Acta Soc. ent. Čsl. **48** pp. 43–53.

Notes on a collection of Cerambycids from the W. Australian Museum, MCKEOWN Rec. Aust. Mus. **22** 1948 pp. 42–63.

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Prionids of India, GRESSITT Indian For. Rec. (N.S.) Ent. **8** 1950 pp. 9–11.

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Microplophorus calverti author Philippi 1897 not Germain, valid sp. not synonym of *magellanicus* Blanch. p. 193, BOSQ Rev. chil. Ent. **1.**

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Cerambycidae of the Swiss Mission to the Cameroons, 1947, HEYROVSKÝ Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p. 227.

Historical review of Japanese Cerambycids, 3, OHBAYASHI Ent. Rev. Japan **5** pp. 92–96 [in Japanese].

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Conizonia drurei Pic from *Phytoecia* p. 3, BREUNING Ent. Arb., Munich **2.**—*C.* subgenn. *Pygoptosia*, *Semiangusta* transferred to *Phytoecia*, q.v.—*C. cirteensis* see *Phytoecia*.

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Diboma malina **sp. n.** China p. 511, GRESSITT Longicornia **2.**

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Dorcadion olympicola Heyr. (=*olympianum* Meschn.) p. 156; *tuleškovi* H. (=*frigidum* M.); *ossae* H. (=*ossaum* M.); *o.* ab. *dorsoapertum* Breun. (=*ossaum* ab. *confluens* M.); *subjunctum* Pic (=*weiratheri* ab. *divisum* M.) p. 157, HEYROVSKÝ Acta Soc. ent. Čsl. **48.**—*D. fulvum* **ab. n.** *coriaceipenne* Czechoslovakia p. 1, HEYROVSKÝ Acta ent. Mus. nat. Pragae **26** 1950 no. 372.—*D.* (*Pedestredorcadion*) *caprai* **sp. n.** Persia p. 303, BREUNING Ann. Mus. Stor. nat. Genova **64.**

Ebaeides corporaali **sp. n.** Sumatra, Java p. 135, BREUNING Tijdschr. Ent. **93.**

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Echthistatus binodosus **subsp. n.** *meridionalis* Japan p. 79, HAYASHI Ent. Rev. Japan **5.**

Enotocleptes denticollis Fauv. from *Microcleptes* p. 24, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Epiglenea reduced to subgen. of *Phytoecia*, q.v.

Epipedocera atritarsis **subsp. n.** *djoui* China p. 627, GRESSITT Longicornia **2.**

Ereis bifasciata see *Trichomesosa*.

Eunidia lujai **sp. n.** Belg. Congo p. 152, BREUNING Rev. Zool. Bot. afr. **44.**

Eurycotyle see *Pterolophia*.

Exocentrus dalbergianus, hupehensis p. 528, *immaculatus* p. 529 **spp. n.** China figs., GRESSITT Longicornia **2.**—*E. meridianus* p. 227, *saipanensis* p. 228 **spp. n.** Marianna Is., OHBAYASHI Tenthredo **3** 1941.—*E. tonsus* see *Miaenia*.

Falsacanthocinus **gen. n.** for *Acanthocinus brevis* Fauv. p. 18, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Falsagnia **gen. n.** for *Agnia quadrifasciata* Fauv. p. 22, BREUNING t.c.

Falsocleptometopus **gen. n.** for *Cleptometopus setiger* Fauv. (in Neohippopsini **trib. n.**) p. 9, BREUNING t.c.

Glenea sedecimmaculata p. 381, *baramensis* p. 382, *ochreicollis* p. 383, *ochreovitta* p. 384, (*Lineatoglenea* **subgen. n.** p. 385) *lineatopunctata* p. 384, (*Luteoglenea* **subgen. n.** p. 386) *maculicollis* p. 385 **spp. n.**; *saperdoides* **var. n.** *humerovitta* p. 383 Borneo, BREUNING Sarawak Mus. J. **5** 1950.—*G.* (*G.*) *abbreviata* Formosa p. 573, (*G.*) *tenuivittata* China p. 579 **spp. n.**; (*G.*) *miwai* **subsp. n.** *monticola* China; (*G.*) *mitonoana* **n. n.** for *ornata* Mit. nec Gahan p. 576; (*G.*) *centroguttata* Fairm. (=*issikii* Mit.) p. 574; (*G.*) *obliqua* Gr. (=*roubali* Heyr.); *pieliana* Gr. (=*tienmuschana* Heyr.) p. 577 figs., GRESSITT Longicornia **2.**—*G. simulans* Bat. from *Phytoecia* p. 3, BREUNING Ent. Arb., Munich **2.**—*G. lata* see *Cervoglenea*.

Gleneonupserha vaga Gah. from *Phytoecia* p. 3, BREUNING Ent. Arb., Munich **2.**

Gymnostylus signatus **f. n.** *albosignatus* Belg. Congo p. 151, BREUNING Rev. Zool. Bot. afr. **44.**

Haploeax flavescens **sp. n.** Belg. Congo p. 151, BREUNING t.c.

Kuatunia **gen. n.** p. 437, *subasperata* **sp. n.** China p. 438 fig., GRESSITT Longicornia **2.**

Leiopus caledonica, crucifera see *Stenellipsis*.

Lineatoglenea **subgen. n.** (type *lineatopunctata* sp. n.) see *Glenea*.

Luteoglenea **subgen. n.** (type *maculicollis* sp. n.) see *Glenea*.

Lychrosis caballinus **sp. n.** China p. 476 fig., GRESSITT Longicornia **2.**

Maaia **gen. n.** p. 384, *terminata* **sp. n.** China p. 385 fig., GRESSITT t.c.

Mandibularia humeralis, quadricolor **spp. n.** China p. 561 fig., GRESSITT t.c.

Menesia subcarinata **sp. n.** China p. 557 fig., GRESSITT t.c.—*M. bankaensis* **sp. n.** Banka I. p. 138, BREUNING Tijdschr. Ent. **93.**—*M. planifrons* **sp. n.** Sumatra p. 318 fig., TIPPMANN Mitt. münchn. ent. Ges. **41.**

Mesosa (*M.*) *stictica* **subsp. n.** *rugosa* p. 416; (*Aphelocnemia*) *angusta* p. 417, (*A.*) *cheni* p. 418 **spp. n.** China figs., GRESSITT Longicornia **2.**

Miaenia elongata **sp. n.** China p. 532 fig., GRESSITT t.c.—*M. tonsa* Bates from *Exocentrus* p. 82, HAYASHI Ent. Rev. Japan **5.**—*M. brevicollis* p. 225, *sakishimana* p. 227 **spp.n.** Ryukyu Is. figs., GRESSITT Philipp. J. Sci. **79.**

Miccolamia albosetosa **sp. n.** Formosa p. 533, GRESSITT Longicornia **2.**

Microcleptes rugicollis see *Rugosocleptes*; *denticollis* see *Enotocleptes*.

Microestola formosana Formosa p. 513, *inornata, interrupta* p. 514, *parallela* p. 515 China **spp. n.** figs., GRESSITT Longicornia **2.**

Microsoma **subgen. n.** (type *fauveli* Breun.) see *Somatidia*.

Mimorsidis scutellatus **sp. n.** China p. 404 fig., GRESSITT Longicornia **2.**

Mimosybra bipunctata **sp. n.** New Guinea p. 136, BREUNING Tijdschr. Ent. **93.**

Mimozotale **gen. n.** p. 137, *flavolineata* **sp. n.** Sumatra p. 138, BREUNING t.c.

Morimospasma tuberculatum Br. (=*bimaculatum* Br.) p. 348, GRESSITT Longicornia **2.**

Nanohammus taiyal **sp. n.** Formosa p. 628, GRESSITT t.c.

Neodytisis fuscoapicalis **sp. n.** Borneo p. 388, BREUNING Sarawak Mus. J. **5** 1950.

Neonitocris postscutellaris **sp. n.** Ivory Coast p. 37, LEPESME & BREUNING Rev. franç. Ent. **18.**

Neosybra sinuicosta **sp. n.** China p. 502 fig., GRESSITT Longicornia **2.**

Niphlophia **gen. n.**, *chujoi* **sp. n.** China p. 458 fig., GRESSITT t.c.

Niphona tibetana **sp. n.** China p. 457 fig., GRESSITT t.c.

Nitocris schoutedeni **sp. n.**; *büttneri* **var. n.** *seminigrofemoralis* Belg. Congo p. 155, BREUNING Rev. Zool. Bot. afr. **44.**—*N. maculicollis, necydaloides, nigricans* see *Phytoecia.*

Nonymoides botelensis **sp. n.** Formosa p. 531, GRESSITT Longicornia **2.**

Nupserha somalica **sp. n.** Somalia p. 304, BREUNING Ann. Mus. Stor. nat. Genova **64.**—*N. flavipes* **sp. n.** Belg. Congo p. 154, BREUNING Rev. Zool. Bot. afr. **44.**—*N. bidentula* **varr. n.** *impuncta, bancoensis* Ivory Coast p. 38, LEPESME & BREUNING Rev. franç. Ent. **18.**

Nyctimene see *Nyctimenius.*

Nyctimenius **n. n.** for *Nyctimene* Thoms. nec Borkenh. p. 629, GRESSITT Longicornia **2.**

Oberea tetrastigma p. 601, *acuta* p. 629 **spp. n.** China fig., GRESSITT t.c. —*O. sericeiventris* **sp. n.** Borneo p. 386, BREUNING Sarawak Mus. J. **5** 1950.—*O. batoensis, infrasericea* **spp. n.** Batu Is. p. 140, BREUNING Tijdschr. Ent. **93.**

Obereopsis sumatrensis, medana **spp. n.** Sumatra p. 139, BREUNING t.c. —*O. capensis* Per., *limbata* Redt. from *Phytoecia* p. 3, BREUNING Ent. Arb., Munich **2.**—*O. sylvatica* see *Phytoecia.*

Ochrocesis evanida **var. n.** *nigroabdominalis* Borneo p. 388, BREUNING Sarawak Mus. J. **5** 1950.

Ocularia ashantica **f. n.** *truncata* Belg. Congo p. 151, BREUNING Rev. Zool. Bot. afr. **44.**

Oeax griseus **sp. n.** Belg. Congo p. 151, BREUNING t.c.

Oxylamia punctifrons **sp. n.** Ivory Coast p. 36, LEPESME & BREUNING Rev. franç. Ent. **18.**

Palimna fukiena **sp. n.** China p. 434 fig., GRESSITT Longicornia **2.**

Paracanista **gen. n.** for *Acanista arachne* Fauv. p. 19, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Paradyemus **gen. n.**, *nodicollis* **sp. n.** Sumatra p. 135, BREUNING Tijdschr. Ent. **93.**

Paraglenea atropurpurea p. 567, *sylvia* p. 569 **spp. n.** China figs., GRESSITT Longicornia **2.**

Paraphidora see *Anaesthetobrium.*

Parapolyacanthia **gen. n.** for *Polyacanthia trifolium* Fauv. p. 20 BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Paraschoeniona **gen. n.**, *shelfordi* **sp. n.** Borneo p. 387, BREUNING Sarawak Mus. J. **5** 1950.

Parechthistatus gibber **subsp. n.** *longicornis* Japan p. 80, HAYASHI Ent. Rev. Japan **5.**

Parmena modesta see *Stenellipsis geophila.*

Phlyarus bulbicollis **sp. n.** Batu Is. p. 138, BREUNING Tijdschr. Ent. **93.**

Phytoecia revision of spp. pp. 1–103, 353–460; keys to subgenn. p. 4, to spp. p. 6; (*Pilemia* Fairm., *Blepisanis* Pasc., *Epiglenea* Bat. reduced to subgenn.; subgenn. *Pygoptosia* Reitt., *Semiangusta* Pic from *Conizonia*) p. 2; list of names reduced to less than specific rank pp. 3, 4; *cylindrica* L. designated type; *rufipes* Ol. (=*flavipes* F., *sibirica* Gnglb.); *croceipes* Reiche & Saulcy (=*longicollis* Costa); *humeralis* Waltl (=*scapularis* Chvrl.) p. 3; *sylvatica* Hintz. from *Obereopsis*; *maculicollis* Per., *necydaloides* Fahr. (reduced to f. of *porosa*), *nigricans* Auriv. (reduced to f. of *fervida*) from *Nitocris*; *cirteensis* Luc. from *Conizonia*; spp. of *Coptosia* subgen. *Pseudocoptosia* Pic included; *angusta* Auriv. (=*cyanea* Hintz.); *erythaca* Pasc. (=*ruficeps* Auriv.); *nigriventris* Kolbe (=*trivittata*

Hintz.) p. 4; (*Helladia*) *orbicollis* f. *atrofemorata* **n. n.** for *nigrofemorata* Breun. preocc., **f. n.** *maraschensis* p. 54; (*H.*) *humeralis* **f. n.** *flavoreducta* p. 58 Asia Minor; (*H.*) *plasoni* **f. n.** *invitticollis* Turkmenia p. 60; (*Musaria*) *türki* **ff. n.** *transitoria* p. 85, *nigrifrons*, *nigroscapus* p. 86, *quadripunctata* p. 87 Luristan; (*Neomusaria*) *balcanica* **f. n.** *subvitticollis* Asia Minor p. 92; (*Epiglenea*) *comes* **f. n.** *griseopubescens* Japan p. 96; (*Opsilia*) *coeruleascens* **f. n.** *marthae* Catalonia p. 100; *delagrangei* **f. n.** *subgrisea* Syria p. 354; *coeruleipennis* Breun. to subgen. *Phytoecia* from subgen. *Fulgophytoecia* p. 358; (*P.*) *lahoulensis* Kashmir p. 359, (*P.*) *hispancia* (as *hispanica* in Index) Spain p. 364, (*Blepisanis*) *indica* India p. 404, (*B.*) *ciliciae* Ciliciae Adana p. 406, (*B.*) *subcoeruleata* Togo p. 410, (*B.*) *pseudoruficeps* Uganda p. 412, (*B.*) *punctulipennis* p. 415, (*B.*) *infrapunctata* p. 417, (*B.*) *infranigra*, (*B.*) *suturevittata* p. 429, (*Pseudoblepisanis*) *somereni* p. 449 (with **ff. n.** *fuscoapicalis* p. 449, *bipuncticollis* p. 450) Kenya, (*B.*) *pseudofervida* Natal p. 419, (*B.*) *rufulescens* Cape Province p. 421, (*B.*) *latesuturalis* Tanganyika p. 430, (*B.*) *nigrovittata* Ubangi p. 431, (*B.*) *ornata* Angola p. 438, (*Pseudoblepisanis*) *pseudafricana* Uganda p. 448 (with **ff. n.** *partenigra*, *holorufa* Kenya p. 449), (*Pseudoblepisanis*) *atripennis* Belg. Congo p. 450 **spp. n.**; (*Phytoecia*) *griseola* **n. n.** for *grisea* Breun. preocc. p. 359; (*P.*) *bodemeyeri* f. *parterufipes* **n. n.** for *luristanica* Breun. preocc. p. 362; (*P.*) *tenuilinea* **subsp. n.** *mateui* Rio de Oro p. 365; (*P.*) *mannerheimi* **n. n.** for *analis* Mannerh. preocc. p. 368 (with **f. n.** *atroapicaloides* Shansi p. 369); (*P.*) *erythrocnema* f. *azurescens* **n. n.** p. 376; (*P.*) *vaulogeri* f. *lucasi* **n. n.** for *azurea* Luc. preocc. p. 384; (*P.*) *pustulata* f. *coeruleata* **n. n.** for *coeruleomicans* Breun. preocc., **f. n.** *parterufoabdominalis* Anatolia p. 386; (*B.*) *ruficollis* **f. n.** *ochreicollis* Ubangi-Shari p. 408; (*B.*) *aurivillii* **n. n.** for *coerulea* Auriv. preocc. p. 409 (with **f. n.** *violaceipennis* Angola p. 410); (*B.*) *erythaca* **ff. n.** *parteruficeps* Zululand, *nigritipennis* Natal p. 412; (*B.*) *maculicollis* **f. n.** *anterufa* Transvaal p. 413; (*B.*) *collaris* **f. n.** *bulbosa* Natal p. 414; (*B.*) *fervida* **ff. n.** *rufinitibialis*, *nigrodiscalis* Cape Province, *nigriceps*, *nigroreducta* Natal p. 418; (*B.*) *suturaloides* **n. n.** for *suturalis* Pasc. preocc. p. 419; (*B.*) *exilis* **ff. n.** *vittulipennis* Transvaal, *trivitticollis* p. 422; (*B.*) *vittata* **f. n.** *nigrotibialis* Nyasaland p. 423; (*B.*) *flavovittata* **f. n.** *latevitticollis* Bechuanaland p. 424; (*B.*) *aterrima* **n. n.** for *nigerrima* Breun. preocc. p. 425; (*B.*) *neavei* **ff. n.** *unimaculicollis* Belg. Congo, *trimaculicollis* Uganda, *guineana* Senegal–Nigeria, *senegalensis* Senegal p. 428; (*B.*) *larvata* **f. n.** *fuscoantennata* Transvaal p. 429; (*B.*) *uniformis* f. *rufiniventris* **n. n.** for *rufiventris* Breun. preocc., f. *discomaculatoides* **n. n.** for *discomaculata* Breun. preocc. p. 433; (*B.*) *lateralis* f. *pallidipes* **n. n.** for *pallida* Auriv. preocc. p. 434; (*B.*) *sublateralis* **f. n.** *rufodiscalis* Angola p. 435; (*B.*) *insignis* f. *holonigripes* **n. n.** for *nigripes* Auriv. preocc., **f. n.** *apicefusca* Tanganyika; (*B.*) *nigroapicaloides* **n. n.** for *nigroapicalis* Breun. preocc. p. 437; (*Pseudoblepisanis*) *analis* **ff. n.** *rufiniabdominalis* p. 442, *flava* Gaboon, *rufescens* Senegal; (*Pseudoblepisanis*) *kolbei* **n. n.** for *geniculata* Kolbe preocc. p. 443 (with **ff. n.** *togoensis*, *rufoantennata* Togo, *lamottei* Guinea p. 444); (*Pseudoblepisanis*) *nigriventris* **ff. n.** *anterufipes* Gaboon p. 447, *dimidiatoides* Belg. Congo p. 448, f. *rufiniceps* **n. n.** for *ruficeps* Breun. preocc., f. *fuscoantennalis* **n. n.** for *fuscicornis* Breun. preocc. p. 447, f. *tripunctulata* **n. n.** for *tripunctata* Breun. preocc. p. 448; (*Pseudoblepisanis*) *haroldi* **ff. n.** *holatripes* p. 453, *bipunctulicollis* p. 454 Tanganyika, *atricornis* Uganda, *unimaculata* Nyasaland, *verticepunctata* Kenya p. 453, *occidentalis* Cameroons p. 454, BREUNING Ent. Arb., Munich **2.**—*P. africana*, *suturalis* see *Pseudophytoecia*; *basalis*, *bicolor* see *Pseudoconizonia*; *capensis*, *limbata* see *Obereopsis*; *drurei* see *Conizonia*; *infernalis* see *Thyestilla*; *simulans* see *Glenea*; *vaga* see *Gleneonupserha*; *gleneoides* see *Stenostola*.

Pilemia reduced to subgen. of *Phytoecia*, q.v.

Platyomopsis canus, *delicatula* **spp.**

n. Australia p. 60, McKEOWN Rec. Aust. Mus. **22** 1948.

Pogonocherus dimidiatus Bless. (= *seminiveus* Bates) p. 516, GRESSITT Longicornia **2.**

Polyacanthia trifolium see *Parapolyacanthia.*

Pothyne fasciata **sp. n.** China p. 539; *laterialba* Gr. (=*albolateralis* Br.) p. 540, GRESSITT Longicornia **2.**

Prosoplus (*Escharodes*) *convexicollis* **sp. n.** New Guinea p. 134, BREUNING Tijdschr. Ent. **93.**—*P. oceanicus* **sp. n.** Marianna Is. p. 226, OHBAYASHI Tenthredo **3** 1941.

Prosopocera (*Dalterus*) *vaneyeni* **sp. n.** Belg. Congo p. 150, BREUNING Rev. Zool. Bot. afr. **44.**

Pseudanaesthetis sordidus **sp. n.** China p. 506 fig., GRESSITT Longicornia **2.**

Pseudocalamobius piceus **sp. n.** China p. 543, GRESSITT t.c.

Pseudoconizonia basalis Gah., *bicolor* Per. from *Phytoecia* p. 3, BREUNING Ent. Arb., Munich **2.**

Pseudophytoecia africana Auriv., *suturalis* Auriv. from *Phytoecia* p. 3, BREUNING t.c.

Pseudotmesisternus **gen. n.** for *Tmesisternus vestitus* Fauv. p. 16, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Pteridoteloides **gen. n.** for *Pteridotelus argentellus* Fauv. p. 21, BREUNING t.c.

Pteridotelus argentellus see *Pteridoteloides.*

Pterolophia Newm. (=*Eurycotyle* Bless.) p. 459; *dalbergicola* p. 467, *discalis* p. 468, *reduplicata* p. 471, *rubricornis* p. 472, *suisapana* p. 473, *trilineicollis* p. 475 **spp. n.** China; *maackia* Bless. (=*mandshurica* Br., *chahara* Gress.) p. 470 figs., GRESSITT Longicornia **2.**—*P. saipana* **sp. n.** Marianna Is. p. 225, OHBAYASHI Tenthredo **3** 1941.

Rhodopina **n. n.** for *Rhodopis* Th. nec Reich. p. 439; *subuniformis* **sp. n.** China p. 440 fig., GRESSITT Longicornia **2.**

Rhodopis see *Rhodopina.*

Rhytiphora crucensis, argenteolateralis **spp. n.** Australia p. 61, McKEOWN Rec. Aust. Mus. **22** 1948.

Ropica umbrata **sp. n.** China p. 492 fig., GRESSITT Longicornia **2.**

Rugosocleptes **gen. n.** for *Microcleptes rugicollis* Fauv. p. 3, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Saperda nigra p. 552, *pallidipennis* p. 553, *viridipennis* p. 554 **spp. n.** China figs., GRESSITT Longicornia **2.**

Serixia aureovittata, punctipennis p. 373, *argenteipennis, curta* p. 374, *pseudoplagiata, rufula* p. 375, *nigritarsis, nigrotibialis* p. 376, *flavicans, elongatula, densevestita* p. 377, *robusta* **spp. n.**; (*Xyasta*) *paradoxa* **var. n.** *fuscipennis* p. 378 Borneo, BREUNING Sarawak Mus. J. **5** 1950.

Serixiophytoecia **gen. n.**, *vitticollis* **sp. n.** Borneo p. 380, BREUNING t.c.

Similosodus chinensis **sp. n.** China p. 483 fig., GRESSITT Longicornia **2.**

Somatidia (*Microsoma* **subgen. n.**) *fauveli* **n. n.** for *ptinoides* Fauv. preocc. p. 1, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Sophronica ochreiceps, ochreovitticollis **spp. n.**; *amplipennis* **var. n.** *rufulipennis* p. 153 Belg. Congo, BREUNING Rev. Zool. Bot. afr. **44.**—*S. delamarei, rufuloides* **spp. n.** Ivory Coast p. 37, LEPESME & BREUNING Rev. franç. Ent. **18.**—*S. koreana* **sp. n.** Korea p. 508, GRESSITT Longicornia **2.**

Sphigmothorax tricinctus **sp. n.** China p. 534 fig., GRESSITT t.c.

Stenellipsis geophila Montr. (=*Parmena modesta* Montr.) p. 10; *murina* Fauv. (=*Xylotoles laticollis* Fauv.) p. 11; *caledonica* Fauv., *crucifera* Fauv. from *Leiopus* p. 12; key to spp. p. 13, BREUNING Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Stenostola gleneoides Gress. from *Phytoecia* p. 4, BREUNING Ent. Arb., Munich **2.**—*S. atra* p. 608, *lineata* p. 609, *pallida* p. 610 **spp. n.** China figs., GRESSITT Longicornia **2.**

Sybra pascoei **subsp. n.** *taiwanella* p. 499; *piceomacula* **sp. n.** p. 500 China fig., GRESSITT t.c.—*S. acutipennis* **sp. n.** New Guinea p. 136, BREUNING Tijdschr. Ent. **93.**

Thyestilla infernalis Pic from *Phytoecia* p. 3, Breuning Ent. Arb., Munich **2.**

Tinkhamia validicornis **sp. n.** China p. 487 fig., Gressitt Longicornia **2.**

Tmesisternus vestitus see *Pseudotmesisternus.*

Tragocephala vaneyeni **sp. n.** Belg. Congo p. 149, Breuning Rev. Zool. Bot. afr. **44.**

Trichomesosa **gen. n.** for *Ereis bifasciata* Pic p. 389, Breuning Novit. Ent. **3** Suppl. fasc. 49 1938.

Tricondyloides armatus Montr. (= *armatoides* Breun.); *rugifrons* **sp. n.** New Caledonia p. 4, Breuning Bull. Inst. R. Sci. nat. Belg. **27** no. 32.

Typocaeta vitticollis **sp. n.** Belg. Congo p. 152, Breuning Rev. Zool. Bot. afr. **44.**

Xylorhiza erectepilosa **sp. n.** China p. 308 figs., Tippmann Mitt. münchn. ent. Ges. **41.**

Xylotoles laticollis see *Stenellipsis murina.*

Yimnashana lungtauensis p. 484, *theae* p. 485 **spp. n.** China fig., Gressitt Longicornia **2.**

Zosne matagensis p. 378, *pacchisa, violacea* p. 379 **spp. n.** Borneo, Breuning Sarawak Mus. J. **5** 1950.

Bruchidae (Lariidae).

Bruchids of Belg. Congo, Decelle Rev. Zool. Bot. afr. **45** pp. 172–192, 5 figs.

Taxonomic importance of genitalia of some Bruchids of India and Ceylon, with keys, Mukerji & Chatterjee Indian J. Ent. **13** pp. 1–28, 8 pls.

Bruchidius submaculatus **var. n.** *cadenati* Senegal p. 1100, Pic Bull. Inst. franç. Afr. noire **13.**

Bruchus mulunguensis p. 183, *ineaci, ealensis* p. 185, *basilewskyi* p. 186 **spp. n.** Belg. Congo, Decelle Rev. Zool. Bot. afr. **45.**—*B.* (*Pygobruchidius* **subgen. n.**) *latiorithorax* Natal, S. Rhodesia, (*P.*) *longepygus* Natal p. 427, *elongaticornis* Transvaal p. 428 **spp. n.**, Pic Ann. Transv. Mus. **21.**—*B. natalensis, cavithorax, longipennis, subuniformis, biloboscutus, albosparsus, signatopygus, rubropygialis* see *Tuberculobruchus*; *strangulatus, flabellicornis, bedfordi, atrosuturalis* see *Conicobruchus.*

Callosobruchus maculatus early stages p. 107 figs., Domenichini Boll. Zool. agrar. bachic., Turin **17.**—*C. chinensis* L. (=*rhodesianus* Pic, *marshalli* P.) p. 176, Decelle Rev. Zool. Bot. afr. **45.**

Caryedon congensis (also Tanganyika) p. 189, *kivuensis* p. 190 **spp. n.** Belg. Congo, Decelle t.c.

Conicobruchus **gen. n.** for *Bruchus strangulatus* Fåhr., *flabellicornis* Boh., *bedfordi* Pic, *atrosuturalis* P., p. 181, Decelle t.c.

Pygobruchidius **subgen. n.** see *Bruchus.*

Specularius vanderijsti **subsp. n.** *kivuensis*; *katangensis* **sp. n.** Belg. Congo p. 178 figs., Decelle Rev. Zool. Bot. afr. **45.**

Tuberculobruchus **gen. n.** for *Bruchus natalensis* Pic p. 179, *cavithorax* P., *longipennis* P., *subuniformis* P., *biloboscutus* P., *albosparsus* Fåhr., *signatopygus* P., *rubropygialis* P. p. 180, Decelle t.c.

Phytophaga.

Some S. American Chrysomeloidea from the Zool. Mus. Univ. Helsinki, Bechyné Notul. ent. **31** pp. 59–66, 2 figs.

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Sagridae of Parc nat. Upemba, JOLIVET Explor. Parc nat. Upemba, Miss. de Witte (1946–49) no. 4 p. 15.

Sagra femorata **subsp. n.** *andamanensis* Andaman Is. p. 2, JOLIVET Bull. Inst. R. Sci. nat. Belg. **27** no. 52.

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Hemydacne strangulata, antennalis **spp. n.** Madagascar p. 91, BECHYNÉ Bull. Soc. linn. Lyon **20.**

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Incisolopha **subgen. n.** (type *transversicollis* sp. n.) see *Macrolopha.*

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Mastosthethus columbianus Colombia, *bifasciatus* Bolivia **spp. n.** p. 577 figs., GUÉRIN Ent. Arb., Munich **2.**

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Mimocolobapsis **gen. n.** for *Colobapsis* [sic=*Colobaspis*] *delagoana* Pic p. 31, PIC Rev. Zool. Bot. afr. **45.**

Mimosphondilia (also as *Mimosphondylia*) **subgen. n.** see *Antonaria.*

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Lepronota (*L.*) *marshalli* **ab. n.** *cyanicolor* Paraguay, Brazil; (*L.*) *sachtlebeni* **sp. n.** Brazil p. 289, Bechyné Ent. Arb., Munich **2.**

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Maecolaspis diversa **ab. n.** *pseudolocardairei* [sic] Colombia; *sulphuripes* **subsp. n.** *matura*; *delphina* p. 303, *perichrysea* p. 305, *pantaria* (with **subsp. n.** *emarginatior*, **ab. n.** *abantia* Peru) p. 306, *mapiriensis* p. 309, *retracta*, *stenopoda* p. 310, *zischkai* (also Argentina) p. 312, *kuscheli* (with **ab. n.** *amans*) p. 313, *yungarum* p. 314 Bolivia, *tabacilla* Peru (with **subspp. n.** *sedula* Ecuador, *berriensis* Colombia) p. 307, *panzoensis*, *meriamae* Guatemala, *mixticolor* p. 309, *concupiens* p. 310 Brazil, *apurensis* Venezuela p. 313 **spp. n.**; *antanossa* **subspp. n.** *coloresignata*, *maueensis* Brazil p. 304; *lebasi* **ab. n.** *invisella* Colombia p. 305; *gemmingeri* **subsp. n.** *chaparensis* p. 308; *pulchella* **ab. n.** *lentula* p. 310; *inquinata* **subsp. n.** *onusta*; *inconstans* **subsp. n.** *constituta* p. 312 Bolivia; *aeneola* **subsp. n.** *barticensis* Br. Guiana p. 313, BECHYNÉ Ent. Arb., Munich **2**.—*M. bohumilae*, *subacuta* p. 100, *vieta* **spp. n.** Brazil; *violetta* Bech. raised to sp. (with **ab. n.** *isoaeruginosa* Argentina) p. 101; *compta* **subsp. n.** *onca* Venezuela; *ornata* **abb. n.** *elegantissima*, *subfastuosa* Peru p. 102, BECHYNÉ Mem. Mus. Stor. nat. Verona **2** (1949–50) [? 1951].—*M. clavipes* see *Deuternoda*.

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Hispids of Port. Guinea, GOMES ALVES An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 113–117.

Southern Asiatic Hispinae from Zool. Mus. Univ. Berlin, pt. 5, UHMANN Ent. Bl. **47** pp. 22–39, 4 figs.

Hispidae of the Swiss Mission to the Cameroons, 1947, UHMANN Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 p. 229.

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Notes on Netherlands Hymenoptera, KOORNNEEF Ent. Ber., Amst. **13** pp. 244–249.

Synoptic catalogue of the Hymenoptera of America north of Mexico, with much new synonymy, MUESEBECK, KROMBEIN & TOWNES Agric. Monogr. U.S. Dep. Agric. no. 2 [1+] 1420 pp. 1 fldg. map.

Endemic British races of Aculeata, RICHARDS J. Soc. Brit. Ent. **4** pp. 1–4.

Hymenoptera of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1941 pp. 822–833.

Pollen-bearing and predacious Hymenoptera of Slovakia, ZAVADIL Ent. Listy **14** pp. 75–88.

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Apidae of the nature reserve park, Lüneburg Heath, Germany, ALFKEN Abh. naturw. Ver. Bremen **31** 1941 pp. 750–762.

Bee fauna of Bremen, ALFKEN Mitt. ent. Ver. Bremen **26** 1938 [?1939] pp. 6–30.

Megachilinae of Swiss Exped. to Morocco, 1947, BENOIST Bull. Soc. Sci. nat. Maroc **30** pp. 183–193, 5 figs.

Distributional and systematic notes on some Central European Apidae, BLÜTHGEN Bonn. zool. Beitr. **2** pp. 229–231.

Bombidae of Br. Columbia, BUCKELL Proc. ent. Soc. Brit. Columbia **47** pp. 7–24, 1 fig.

Bombidae of Indiana, CHANDLER Proc. Indiana Acad. Sci. **60** pp. 167–177, 2 figs.

Apidae of France, DOUBLET Entomologiste **7** pp. 110–114.

Apids of Libya, GUIGLIA Ann. Mus. libico Stor. nat. **3** 1942 pp. 244–247.

Bees of Solomon Is. (list p. 277), KROMBEIN Proc. Hawaii. ent. Soc. **14** pp. 277–295.

Bees of Cyprus, I, MAVROMOUSTAKIS Ann. Mag. nat. Hist. (12) **4** pp. 334–354, 1 fig.

Ethiopian Anthidiinae, MAVROMOUSTAKIS Ann. Mag. nat. Hist. (12) **4** pp. 962–981, 4 figs.

Megachilid bees from Texas, MICHENER Pan-Pacif. Ent. **27** pp. 61–71, 13 figs.

Apids of Tadzhikistan, POPOV Trud. zool. Inst. Akad. Nauk SSSR **8** 1949 pp. 688–699.

Bombidae of Danish Expedition to Central Asia, RICHARDS Vidensk. Medd. Dansk naturh. Foren. Kbh. **113** pp. 191–199, 2 figs.

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Variations in Apidae, VECCHI & GIAVARINI Boll. Ist. Ent. Bologna **18** 1950 pp. 1–13, 4 figs.

Aframegilla **subgen. n.** (type *nubica* Lep.) see *Amegilla*.

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Sphecidae collected by Guichard in W. Africa and Ethiopia, 1941–1948, ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2** pp. 97–166, figs.

Sphegids in University of Bologna Inst. Ent., DE BEAUMONT Boll. Ist. Ent. Bologna **18** pp. 305–349, 17 figs.

Sphegids of Swiss Expedition to Morocco, 1947, DE BEAUMONT Bull. Soc. Sci. nat. Maroc **29** pp. 259–284, 20 figs.

Distributional and systematic notes on some Central European Sphegidae, BLÜTHGEN Bonn. zool. Beitr. **2** pp. 232–234.

Keys to genera and spp. of Michigan Bembecids and distribution records, DREISBACH Pap. Mich. Acad. Sci. **35** pt. 2 Zool. pp. 101–107.

Sphegids of Libya, GUIGLIA Ann. Mus. libico Stor. nat. **2** 1940 pp. 280–293, 5 figs.; **3** 1942 pp. 228–235.

Supplement to Pate's key to Sphegid genn. 1944, LECLERCQ Bull. Ann. Soc. ent. Belg. **87** p. 43.

Synonymic catalogue of Crabroninae of Belgium, LECLERCQ Bull. Inst. R. Sci. nat. Belg. **27** no. 28, 20 pp.

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Philanthus revision of European spp. pp. 299–315, key p. 299; *coronatus* **subsp. n.** *occidentalis* Spain p. 305; *venustus* Rossi (=*melliniformis* Sm.) p. 309 figs., DE BEAUMONT Mitt. schweiz. ent. Ges. **24.**—*P. histrio* **subsp. n.** *distinctus* Ethiopia p. 100 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**—*P. strandtmanni* **n. n.** for *ventralis* Mick. nec How. p. 1002, BURKS in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Philoponidea see *Pseudoscolia*.

Phytosphex **gen. n.** for *Tachysphex turneri* Arn. p. 153 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**

Piyuma makilingi Williams, *iwatai* Yasum., *dentipleuris* Cam. from *Crabro* p. 51, LECLERCQ Bull. Ann. Soc. ent. Belg. **87.**

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Solierella nigrans **n. n.** for *niger* Rohw. nec Ashm. p. 943, KROMBEIN in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Sphecius revision of Palaearctic spp. (key p. 82) pp. 79–94; *schulthessi* **sp. n.** N. Africa p. 90 figs., ROTH Ann. Soc. ent. Fr. **118.**

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Turneriola **gen. n.** for *Crabro perlucida* Turner p. 54, LECLERCQ Bull. Ann. Soc. ent. Belg. **87**.

Vechtia spinifrons **var. n.** *forticarinata* Borneo p. 52, LECLERCQ t.c.

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BETHYLIDAE, DRYINIDAE.

Dryinidae of Parc nat. Albert, Belg. Congo, BENOIT Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 73 pp. 1–18, 10 figs.

Correction concerning certain Dryinid types published in 1939, RICHARDS Ann. Mag. nat. Hist. (12) **4** p. 820.

Agonatopoides jujuyensis **sp. n.** Argentina p. 488 figs., OGLOBLIN Acta zool. lilloana **9** [preprint 1950].

Anteon whittakeri **n. n.** for *flaviscapus* Whit. preocc. p. 1040, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.—*A. anthereon* p. 160, *inflatrix* p. 161 **spp. n.** S. Africa, BENOIT Rev. Zool. Bot. afr. **44**.—*A. xerophilus* **sp. n.** Cyrenaica p. 301, BENOIT Ann. Mus. Stor. nat. Genova **64**.

Aphelopus inexpectatus **sp. n.** Cyrenaica p. 302, BENOIT t.c.—*A. africanus* p. 15, *wittei* p. 16 **spp. n.** Belg. Congo figs., BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73.

Bethylus struvei **sp. n.** Borkum I. p. 835 fig., VON SZELÉNYI Abh. naturw. Ver. Bremen **31** 1941.

Chelogynus kivuanus **sp. n.** Belg. Congo p. 13 fig., BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73.

Conganteon **gen. n.** p. 11, *vulcanicus* **sp. n.** Belg. Congo p. 12 figs., BENOIT t.c.

Dicondylus turneri **sp. n.** S. Africa p. 158, BENOIT Rev. Zool. Bot. afr. **44**.

Digonatopus guigliae **sp. n.** Uganda p. 298, BENOIT Ann. Mus. Stor. nat. Genova **64**.

Dryinus maculicornis, *alticola*, *ormenidis* see *Neodryinus*; *ruficeps* see *Mesodryinus*.

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Laberius palpalis **sp. n.** Belg. Congo p. 10 fig., BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73.

Lestodryinus alticola p. 4, *luweli* p. 6 **spp. n.** Belg. Congo figs., BENOIT t.c.

Mesodryinus ruficeps Cam. from *Dryinus* p. 819, RICHARDS Ann. Mag. nat. Hist. (12) **4**.

Neodryinus characters; *trinitatis* **sp. n.** Trinidad p. 816; *maculicornis* Cam., *alticola* Cam., *ormenidis* Ashm. from *Dryinus*; *rugidorsalis* Turn. from *Psilodryinus*; key to females of American spp. p. 819 figs., RICHARDS t.c.

Pedinomma antennalis see *Embolemus*.

Platygonatopus albolineatus **subsp. n.** *desericus* Libya p. 299 ; *ugandanus* **sp. n.** Uganda p. 300, BENOIT Ann. Mus. Stor. nat. Genova **64.**

Pseudogonatopus polli **sp. n.** Belg. Congo p. 8, BENOIT Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 73.—*P. cornutus* **sp. n.** S. Africa p. 159, BENOIT Rev. Zool. Bot. afr. **44.**

Pseudoisobrachium haywardi **sp. n.** Argentina p. 490 figs., OGLOBLIN Acta zool. lilloana **9** [preprint 1950].

Psilodryinus rugidorsalis see *Neodryinus*.

Rhopalosoma missionicum Argentina p. 11, *martinezi* Bolivia p. 14 **spp. n.** figs., OGLOBLIN Rev. Soc. ent. argent. **15.**

Thaumatodryinus rufus **sp. n.** Trinidad p. 815, RICHARDS Ann. Mag. nat. Hist. (12) **4.**

Xenanteon gutturnium **sp. n.** S. Africa p. 162, BENOIT Rev. Zool. Bot. afr. **44.**—*X. gutturnium* **subsp. n.** *rutshuricum* Belg. Congo p. 13 fig., BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73.

SCOLIIDAE
(including TIPHIIDAE).

Scoliids of Libia, GUIGLIA Ann. Mus. libico Stor. nat. **2** 1940 pp. 277–280 ; **3** 1942 pp. 237–239.

Scoliids of Swiss Expedition to Morocco, 1947, GUIGLIA Bull. Soc. Sci. nat. Maroc **29** pp. 286–292.

Tiphiids of Swiss Expedition to Morocco, 1947, GUIGLIA Bull. Soc. Sci. nat. Maroc **29** p. 292.

African Scoliids in Paris Mus., GUIGLIA Doriana **1** no. 13, 10 pp.

Obenbergerellidae Strand (=Alieniscidae Benoit) in **trib. n.** Obenbergerellini and subfam. Myrmosinae pp. 238–240, GHESQUIÈRE Bull. Ann. Soc. ent. Belg. **87.**

MUTILLIDAE (including METHOCIDAE, MYRMOSIDAE).

Mutillidae of Shansi, N. China, YASUMATSU Mushi **22** pp. 69–72.

Dasymutilla angulata **n. n.** for *anguliceps* Fox nec André p. 762, KROMBEIN in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Ephuta revision of N. American spp. north of Mexico pp. 1–42 ; *cephalotes* p. 24, *floridana* (with **subsp. n.** *dietrichi* p. 32), *psephenophila*, *margueritae* (with **subsp. n.** *xanthocephala*) p. 25, *ecarinata* (with **subspp. n.** *neomexicana*, *pima*), *argenticeps* p. 26, *spinifera* p. 27, *stenognatha* (with **subsp. n.** *psephenophora*), *sabaliana* (with **subsp. n.** *fattigi*) p. 28, *eurygnathus* p. 29, *tumacacori* p. 20, *baboquivari*, *auricapitis*, *albiceps* p. 31, *coloradella*, *minuta* (with **subsp. n.** *modesta*) p. 32, *spinifera*, *tentativa* p. 34 **spp. n.**; *grisea* **subsp. n.** *fuscosericea* p. 27 ; *battlei* **subspp. n.** *fattigi*, *transitionalis* p. 28, *microcellaria*, *confusa* ; *pauxilla* **subsp. n.** *texanella* p. 29 ; *slossonae* **subsp. n.** *monochroa* p. 34 U.S.A. figs., SCHUSTER J. N.Y. ent. Soc. **59.**

Hoplomutilla distributional and descriptive notes on some S. American spp. ; *paradoxa* Mick. (=*cadmus* M.) p. 316 ; *euryale* **subsp. n.** *contigua* p. 317 ; *approximata* **var. n.** *huallaga* p. 323 Peru ; *phorcys* **subsp. n.** *submaculata* p. 322 ; *transversalis* **sp. n.** p. 325 Brazil, SCHUSTER Rev. Ent., Rio de J. **22.**

Odontophotopsis melanderella **n. n.** for *simpliciventris* Mel. nec André p. 757, KROMBEIN in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Pseudomethoca anthracina Fox (=*harpalyce* Fox) p. 156, HURD Pan-Pacif. Ent. **27.**

Smicromyrme mareotica Egypt, Cyrenaica p. 34, *ligustica* p. 38 (with **varr. n.** *borgiana*, *myrtacea*) Liguria **spp. n.**; *rufipes* p. 35, *agusii* p. 39, *sericeiceps* p. 41 characters figs., INVREA Boll. Soc. ent. ital. **81.**—*S. cyaneiventris* ♀ p. 71, YASUMATSU Mushi **22.**

Timulla navasota coahuila **n. n.** for *n. nebulosa* Mickel 1937 nec 1935 p. 771, KROMBEIN in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

POMPILIDAE (PSAMMOCHARIDAE).

Pompilidae collected by Guichard in W. Africa and Ethiopia, 1941–1948, ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2** pp. 166–183, figs.

Taxonomic study of Nearctic Pompilini, II, III, EVANS Trans. Amer. ent. Soc. **76** pp. 207–361, 12 pls.; **77** pp. 203–330, 10 pls.

Pompilids of Libya, GUIGLIA Ann. Mus. libico Stor. nat. **3** 1942 pp. 235–237.

Revision of Spanish Psammocharids, II, DEL JUNCO Y REYES Eos **27** pp. 143–233, 2 pls., 59 figs.

Pompilidae of the Lahn-Dill-Sieg area, Germany, WOLF Ent. Z. **59** 1950 pp. 183–184, 187–190.

Ageniella (*Leucophrus* **subgen. n.** for *Priocnemis semitincta* Banks p. 917), TOWNES in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Anoplius revision of Nearctic spp. pp. 207–361; (*Lophopompilus*) *aethiops* Cress. (=*azotus* Banks) p. 216; (*L.*) *carolinus* B. from *Psammochares* p. 220, ♂ p. 221; (*Notiochares*) *amethystinus* F. (=*Pompilus anceps* C., *P. cubensis* C., *Psammochares philadelphicus* var. *floridensis* B.) p. 229; (*N.*) *a. atramentarius* Dahlb. (=*Sericopompilus plutonis* B. p. 231, (*N.*) *angusticeps* B. p. 232); (*Anopliodes*) *parsonsi* B. from *Psammochares* p. 236; (*A.*) *bolli* B. (=*modestus* B.) p. 238; (*Arachnophroctonus* How. (=*Arachnophila* Ashm., *Arachnodaicter* Pate)) p. 240; *bellicosus* B. to subgen. *Arachnophroctonus* from *Lophopompilus* p. 246; (*A.*) *relativus* Fox (=*confraternus* B., *Psammochares hesione* B., *P. difficilis* B., *P. henshawi* B.) p. 248; (*A.*) *autumnalis* B. a subsp. of *apiculatus* Sm. p. 262; (*A.*) *apiculatus pretiosus* B. (=*autumnalis* var. *atlanticus* B.) p. 263; (*A.*) *semirufus* Cr. (=*Arachnodaicter divisus* Cr.) p. 264; (*A.*) *americanus* Beauv. (=*Psammochares albomarginatus* B., *P. agnema* Brimley) p. 268; (*A.*) *trifasciatus* Beauv. (=*Psammochares eurydice* Banks) a var. not synonym of *americanus* p. 271; (*A.*) *juxtus* Cr. (=*puella* B., *Pompiloides subargentea* B.) a var. of *americanus* p. 273; (*A.*) *moestus* B. (=*comanche* B.) from *Psammochares* p. 275; (*Pompilinus*) *cylindricus* Cr. (=*truncatus* Dr., *subtruncatus* Dr., *hispidus* Dr., *Arachnophila brevihirta* B.) p. 294; (*P.*) *tenebrosus* Cr. (=*compactus* Prov.) p. 301; (*P.*) *rectangularis* **subsp. n.** *gillaspyi* Texas, N. Carolina p. 310; (*P.*) *bequaerti* Dr. a subsp. of *stenotus* B. p. 312; (*P.*) *townesi* **sp. n.** U.S.A., Canada p. 313; (*P.*) *marginatus* Say (=*Pompiloides reducta* B., *P. hageni* B.) p. 316; (*P.*) *splendens* Dr. (=*pseudoreductus* Dr.) p. 320; (*P.*) *fraternus* B. (=*dowi* Dr.) p. 322; (s. str.) *nigerrimus* Scop. (=*wheeleri* B. p. 330, *banksi* Dr. p. 331); (s. str.) *ithaca* B. (=*selkirkensis* B.) p. 336; (s. str.) *imbellis* B. (=var. *major* Dr.) p. 348; (s. str.) *ventralis* B. (=*elongatus* Dr., *subtarsatus* Dr.) p. 353; (s. str.) *v. tarsatus* B. (=*papago* B.) p. 356 figs., EVANS Trans. Amer. ent. Soc. **76.**—*A. octomaculatus* **sp. n.** Fr. Sudan p. 180 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**

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Calicurgus hyalinatus p. 147 (with form *atra* p. 152) characters; list of World spp. p. 145 figs., DEL JUNCO Y REYES Eos **27.**

Cryptocheilus rhodesianus **subsp. n.** *senegalensis* Fr. Sudan p. 168 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**

Deuteragenia revision of Spanish spp. pp. 162–193, list of World spp. p. 164, keys p. 165 figs., DEL JUNCO Y REYES Eos **27.**

Evagetes Lep. (=*Streptosella* Dreisb.) p. 310; *crassicornis* Shuck. (=*steyskali* D., *albertensis* D., *stricklandi* D.) p. 311, EVANS Trans. Amer. ent. Soc. **77.**

Guichardia **gen. n.**, *macilenta* **sp. n.** Gold Coast p. 178 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**

Leucophrus **subgen. n.** (type *semitincta* Banks) see *Ageniella*.

Marimba guichardi **sp. n.** Ethiopia p. 170 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2**.

Paracyphononyx funebris **sp. n.** Ethiopia p. 177 figs., ARNOLD t.c.

Perissopompilus **subgen. n.** (type *phoenix* Evans) see *Pompilus*.

Pilompus **subgen. n.** (type *levis* sp. n.) see *Pompilus*.

Poecilagenia longicollis Gold Coast p. 174, *rugosa* Fr. Sudan p. 175 **spp. n.** figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2**.—*P. rubricans* characters p. 155 figs., DEL JUNCO Y REYES Eos **27**.

Pompiloides subargentea see *Anoplius juxtus*; *reducta, hageni* see *A. marginatus*.

Pompilus revision of Nearctic spp. pp. 205–275; (*Hesperopompilus*) *boharti* California p. 216, (*H.*) *evagetoides* Mexico p. 217, (*Xerochares* p. 218, *Perissopompilus* p. 222 **subgenn. n.**) (*P.*) *perfasciatus* California p. 225 **spp. n.**; (subgen. *Ammosphex* (= *Anopompilinus* Dreisb.) p. 227, (*A.*) *solonus* **subsp. n.** *silvivagus* U.S.A. p. 241; (*A.*) *dakota* Dreisb. a form of *michiganensis* D. p. 245; (*A.*) *imbecillus* **subsp. n.** *ojibwae* Canada, U.S.A. p. 249; (*Arachnospila*) *arctus* Cress. (=*siouxensis* Dreisb., *sculleni* D.) p. 258; (*A.*) *scelestus* Cress. (=*subscelestus* D.) p. 262 figs., EVANS Trans. Amer. ent. Soc. **77**.—*P. contrarius* Fr. Sudan p. 181, (*Pilompus* **subgen. n.**) *levis* Gold Coast p. 182 **spp. n.** figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2**.—*P. anceps, cubensis* see *Anoplius amethystinus*.

Priocnemis modestus **sp. n.** Ethiopia p. 168 figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2**.—*P. semitincta* see *Ageniella*.

Psammochares carolinus, parsonsi, moestus see *Anoplius*; *philadelphicus* var. *floridensis* see *A. amethystinus*; *hesione, difficilis, henshawi* see *A. relativus*; *albomarginatus, agnema* see *A. americanus*; *eurydice* see *A. trifasciatus*.

Pseudagenia revision of Spanish spp. pp. 208–233, list of World spp. p. 195, keys p. 207; *signatitorax* [sic] **sp. n.** Spain p. 232 figs., DEL JUNCO Y REYES Eos **27**.—*P. accraensis* Gold Coast p. 171, *albosignata* Ethiopia p. 172 **spp. n.** figs., ARNOLD Bull. Brit. Mus. (Nat. Hist.) Ent. **2**.

Sericopompilus plutonis see *Anoplius atramentarius*.

Streptosella see *Evagetes*.

Xerochares **subgen. n.** (type *expulsus* Schulz) see *Pompilus*.

VESPIDAE (including MASARIDAE, EUMENIDAE).

New or remarkable Palaearctic Vespidae in the "Zoologische Staatssammlung", Münich, BLÜTHGEN Mitt. münchn. ent. Ges. **41** pp. 166–201.

Vespids of Libya, GUIGLIA Ann. Mus. libico Stor. nat. **3** 1942 pp. 239–244.

Social wasps of S. America, RICHARDS, O. W. & M. J. Trans. R. ent. Soc. Lond. **102** pp. 1–169, 4 pls. 25 figs.

Alastodynerus ludendorfii ♂ p. 167, BLÜTHGEN Mitt. münchn. ent. Ges. **41**.

Alastor (*Megalastor* **subgen. n.** p. 169), BLÜTHGEN t.c.

Allodynerus binominatus Blüth., *nigricornis* Mor. from *Nannodynerus*; *delphinalis* Gir. (=*Odynerus* (*Lionotus*) *novellus* Mor.) p. 158; *hospes* Duf. & Perr. (from *Odynerus*) status discussed p. 161, BLÜTHGEN t.c.

Allogymnomerus **subgen. n.** (type *consobrinus* Duf.) see *Hoplomerus*.

Ancistrocerus antilope Panz. (=*capra* Sauss.); *ichneumonideus* Ratz. (=*thomsoni* Blüth.) a good sp. and not syn. of *Allodynerus rossii* Lep. p. 159; *quadratus* Panz. (=*claripennis* Thoms.) p. 160, BLÜTHGEN Mitt. münchn. ent. Ges. **41**.

Apoica classification of and key to S. American spp. pp. 150–158 figs., RICHARDS, O. W. in RICHARDS & RICHARDS Trans. R. ent. Soc. Lond. **102**.

Chlorodynerus **subgen. n.** (type *chloroticus* Spin.) see *Euodynerus*.

Deuterepipona **gen. n.** for *Odynerus ionius* Sauss. p. 194, Blüthgen Mitt. münchn. ent. Ges. **41.**

Dolichodynerus vandykei **sp. n.** Arizona p. 80, Bohart Proc. biol. Soc. Wash. **63** 1950.

Eumenes aschabadiensis Rad. reduced to var. of (*Delta*) *unguiculatus*; *baerii* Rad. reduced to var. of (*Katamenes*) *sicheli* Sauss.; *sesquicinctus* Web. (=*latipes* Sick.) from *Vespa* p. 158; *arbustorum* **subsp. n.** *flavigularis* Armenia, Erivan etc. p. 176, Blüthgen Mitt. münchn. ent. Ges. **41.**—*E. sculleni* **sp. n.** p. 78; *crucifera* **subsp. n.** *flavitinctus* p. 79 U.S.A., Bohart Proc. biol. Soc. Wash. **63** 1950.—*E. sardous* **sp. n.** Sardinia; *mediterraneus* **subsp. n.** *aemilianus* Italy p. 28 figs., Guiglia Boll. Soc. ent. ital. **81.**

Euodynerus of the Balkans pp. 66–76; (*Syneuodynerus*, *Chlorodynerus* **subgenn. n.** p. 75), Blüthgen Boll. Soc. ent. ital. **81.**—*E. macedonicus* **sp. n.** Macedonia p. 195; *pseudocaspicus* **subsp. n.** *clatratus* Armenia p. 199, Blüthgen Mitt. münchn. ent. Ges. **41.**

Hoplomerus (*Allogymnomerus* **subgen. n.** p. 174), Blüthgen t.c.

Leptepipona **subgen. n.** (type *tripunciata* F.) see *Pseudepipona*.

Leptochilus (*L.*) *castilianus* **sp. n.** Spain p. 178, Blüthgen Mitt. münchn. ent. Ges. **41.**—*L. monolobus* **n. n.** for *heterospilus* Cam. 1908 nec 1907 p. 897, Bohart in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Maricopodynerus **subgen. n.** [of *Odynerus*] type *maricoporum* Vier. p. 397 (note), Viereck Trans. Amer. ent. Soc. **33** 1908.

Megalastor **subgen. n.** (type *savignyi* Sauss.) see *Alastor*.

Metepipona **subgen. n.** (type *peculiaris* Mor.) see *Pseudepipona*.

Nannodynerus binominatus, *nigricornis* see *Allodynerus*.

Odontodynerus cingulifer Wlk.(= *eversmanni* Rad.) p. 158; *laevigatus* Armenia p. 180, *iconius* Asia Minor p. 182 **spp. n.**, Blüthgen Mitt. münchn. ent. Ges. **41.**

Odynerus bisstrigatus Spin. a valid sp. and not syn. of *Euodynerus* (*Pareuodynerus*) *notatus* Jur. p. 163, Blüthgen t.c.—*O. hospes* see *Allodynerus*; (*Lionotus*) *novellus* see *A. delphinalis*; *rhombiferus* see *Pterocheilus unipunctatus*; *ionius* see *Deuterepipona*.

Parodontodynerus ephippium Klug (=*Pterocheilus laetus* H. S.) p. 159, Blüthgen Mitt. münchn. ent. Ges. **41.**

Polistes humilis worker caste p. 15, Cumber Proc. R. ent. Soc. Lond. (A) **26.**—*P. contrarius* p. 985, *comis* p. 991 **spp. n.**; *nigrifrons* **subsp. n.** *obdurus* p. 989 New Guinea; *nigrifrons* p. 987, *elegans* p. 989 redescriptions, Cheesman Ann. Mag. nat. Hist. (12) **4.**

Polybia classification of and keys to S. American spp. pp. 129–150; *bicyttarella* **sp. n.** Br. Guiana p. 132; *parvula* **subsp. n.** *hecuba* Brazil, Paraguay p. 138; *occidentalis* **subspp. n.** *nausicaa* Mexico p. 140, *grenadensis* Grenada, *platycephala* Br. Guiana p. 143; *o.* subsp. *spilonota* Cam. (=*fastidiosuscula* var. *nigriceps* Zavat.) p. 142 figs., Richards, O. W. in Richards & Richards Trans. R. ent. Soc. Lond. **102.**

Pseudepipona (*Metepipona*, *Trichepipona* p. 193, *Leptepipona* p. 194 **subgenn. n.**); *herrichii* **var. n.** *derufata* Erivan, Caucasus etc. p. 184; (*L.*) *jugorum* **sp. n.** Centr. Asia p. 186; *straminea* p. 189, *rubiginosa* p. 191, *sellata* p. 192 redescriptions, Blüthgen Mitt. münchn. ent. Ges. **41.**

Pseudomasaris zonatus **subsp. n.** *albopictus* Wyoming p. 77, Bohart Proc. biol. Soc. Wash. **63** 1950.

Pseudomicrodynerus robustus Dusm. transferred from subgen. *Microdynerus* to subgen. *Pachymicrodynerus* p. 162, Blüthgen Mitt. münchn. ent. Ges. **41.**

Pterocheilus (*Micropterocheilus*) *acuceps* ♂ p. 195; (*M.*) *provancheri* **subsp. n.** *albotinctus* p. 199; (*M.*) *sparsipunctatus* p. 198, (*M.*) *paenacuceps* p. 200, (*Megapterocheilus*) *bradleyi* p. 195, (*Onchopterocheilus*) *sculleni*, (*O.*) *hurdi* p. 197 **spp. n.** U.S.A., Bohart Proc. biol. Soc. Wash. **63** 1950.—*P.* (*Pterochilus*) *emortualis* further description p. 327, Blüthgen

Ann. Mus. Stor. nat. Genova **64.**—*P.* (*Pterochilus*) *phaleratus* var. *interrupta* Klug (=*klugii* Panz.); *unipunctatus* Lep. (=*Odynerus rhombiferus* Duf.); *albopictus* Kriechb. (=*calabrensis* D.T.); *notula* Lep. (=*anormodontus* Kost.) p. 161; *albopictus* Kriechb. (=*calabrensis* D.T.) p. 175; *phaleratus* **subsp. n.** *yeguasicus* Spain p. 200, BLÜTHGEN Mitt. münchn. ent. Ges. **41.**—*P. laetus* see *Parodontodynerus ephippium.*

Symmorphus projectus **sp. n.** U.S.A., Canada p. 81, BOHART Proc. biol. Soc. Wash. **63** 1950.

Syneudynerus **subgen. n.** (type *egregius* H.-S.) see *Euodynerus.*

Trichepipona **subgen. n.** (type *lativentris* Sss.) see *Pseudepipona.*

Trimeria bequaerti **sp. n.** Argentina p. 78; key to spp. p. 81 figs., WILLINK Rev. Soc. ent. argent. **15.**

Vespa orientalis L. (=*quadripunctata* Forsk.) p. 163, BLÜTHGEN Mitt. münchn. ent. Ges. **41.**—*V. sesquicinctus* see *Eumenes*; *biloba* see *Vespula austriaca.*

Vespula austriaca Panz. (= *Vespa biloba* Schill.) p. 163, BLÜTHGEN Mitt. münchn. ent. Ges. **41.**

Zethus (*Zethusculus*) *arizonensis* **sp. n.** Arizona p. 77, BOHART Proc. biol. Soc. Wash. **63** 1950.

Chrysidoidea.

CHRYSIDIDAE.

Classification of European Chrysididae, with keys (list of spp. and synonyms pp. 95–107), LINSENMAIER Mitt. schweiz. ent. Ges. **24** pp. 1–110, 13 figs.

Chrysis (*Spintharichrysis* **subgen. n.** pp. 35, 56); (*Chrysogona*) *leachii* **varr. n.** *cypriana* Cyprus, *cortii* Switzerland p. 50; (*C.*) *germari* **varr. n.** *fulminans* S. Europe, *lucida* p. 51; (*C.*) *spilota* **sp. n.** p. 52 Switzerland; (*C.*) *pyrophana* **var. n.** *orionea* Spain p. 55; (*Spintharis*) *cylindrica* **var. n.** *procerula* Mediterranean Is., Greece p. 61; (*S.*) *rutilans* **var. n.** *rigiana* Central and S. Europe p. 62; (*S.*) *analis* **var. n.** *simplonica* Switzerland, ?Asia Minor, Spain; (*S.*) *scutellaris* **var. n.** *marteni* Spain p. 64; (*S.*) *interjecta* **varr. n.** *robusta* Spain p. 65, *hemichlora* Cyprus p. 66; (s. str.) *ignita* **varr. n.** *mediadentata* Europe p. 75, *aurifera*, *sublongula* S. and Centr. Europe, *mediata* Centr. Europe p. 76, *clarinicollis* Switzerland, Spain, England, N. Africa p. 77, *deleta*, *japanensis*, *nipponica* Japan p. 78, *pseudobrevitarsis* Centr. Europe p. 79; (s. str.) *exulans* **var. n.** *asiatica* Turkestan, Ferghana p. 82 figs., LINSENMAIER Mitt. schweiz. ent. Ges. **24.**—*C.* (*Tetrachrysis*) *rosina* **sp. n.** Czechoslovakia p. 2; (*T.*) *viridula* **var. n.** *milani*; (*T.*) *varidens* **subsp. n.** *eva* Dalmatia p. 4, BALTHASAR Acta ent. Mus. nat. Pragae **26** 1949 no. 363.—*C. brevitarsis* in Germany p. 60, BLÜTHGEN Nachr. naturw. Mus. Aschaffenburg Heft 30.—*C. ignita*, *ruddei* compared p. 191, FAESTER Ent. Medd. **26.**

Cleptes key to Hungarian spp. p. 261; *pallipes* Lep. (=*diana* Mocs.) p. 274; *nitidulus* F. (=*fallax* M., *femoralis* M.) p. 277 (with **var. n.** *erdósi* Hungary p. 278) figs., MÓCZÁR Ann. hist.-nat. Mus. hung. (N.S.) **1.**

Elampus aaroni **n. n.** for *productus* Aar. nec Dahlb. p. 719, BODENSTEIN in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Euchroeus (*Pseudospinolia* **subgen. n.** pp. 27, 31) figs., LINSENMAIER Mitt. schweiz. ent. Ges. **24.**

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Holopyga gloriosa **var. n.** *calida* Armenia, Palestine, Egypt, Morocco p. 15; *amoenula* **var. n.** *virideaurata* S.W. Europe, Rhodes, N. Africa p. 16, LINSENMAIER Mitt. schweiz. ent. Ges. **24.**

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Formicoidea.

FORMICIDAE.

Distributional notes on some Central European Formicidae, BLÜTHGEN Bonn. zool. Beitr. **2** p. 234.

The Formicidae of Australia, Volume I, Myrmeciinae, CLARK 230 pp. 193 figs.

Keys to wood ants, GÖSSWALD Die rote Waldameise . . . pp. 119–135, figs.

Taxonomic study of Cephalotini (excl. *Paracryptocerus* subgenn. *Harnedia, Cyathomyrmex*), KEMPF Rev. Ent., Rio de J. **22** pp. 1–244, 157 figs.

Larvae of Dolichoderinae, WHEELER G. C. & J. Proc. ent. Soc. Wash. **53** pp. 169–210, 4 pls. 1 fig.

Aneleus Emery (=*Sporocleptes* Arnold) p. 169; *politus* ♀ p. 170 figs., CONSANI Boll. Ist. Ent. Bologna **18.**

Calyptomyrmex beccarii Emery (= *Weberidris rufobrunnea* Donis.) p. 101, BROWN Bull. Brooklyn ent. Soc. **46.**

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Cephalotes revision of American spp. pp. 105–127, key p. 111; *atratus* L. status of varr. p. 123; *erectus* subsp. of *atratus* not var. of *a. quadridens* pp. 107, 124; *decemspinosus* Santschi (=var. *spissus* S.) p. 126 figs., KEMPF Rev. Ent., Rio de J. **22.**—*C. abdominalis, opacus* see *Eucryptocerus.*

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Hagensia revision of and key to spp. pp. 53–56 figs., ARNOLD J. ent. Soc. sthn Afr. **14.**

Hypocryptocerus revision pp. 143–152, key p. 146; *haemorrhoidalis unimaculatus* F. Sm. (=*h. steinheili* Wheeler) p. 151, KEMPF Rev. Ent., Rio de J. **22.**

Kyidris mutica Brown (=*Polyhomoa itoi* Azuma) p. 94, BROWN & YASUMATSU Mushi **22.**

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Forel) p. 51; *forficata* F. (=*sanguinea* Sm., *lucida* Forel) p. 93; *gigas* Forel (=*forficata* var. *eudoxia* For.) a sp. and not race of *pyriformis* Sm. p. 108 figs., CLARK Formic. Australia I.

Myrmecina americana Emery (= *graminicola* subsp. *texanus* Wheeler) p. 103; *g.* Latr. (=var. *grouvellei* Bondr., *kutteri* Forel, *Myrmica striatula* Nyl.) p. 106, BROWN Bull. Brooklyn ent. Soc. **46.**

Myrmica laevinodis, ruginodis critical commentary on M. V. & A. D. Brian's observations pp. 324–327, STÄRCKE Ent. Ber., Amst. **13.**—*M. striatula* see *Myrmecina graminicola.*

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Pheidole vinelandica longula var. *huachucana* **n. n.** for var. *castanea* Wheel. nec Sm. p. 805; *buckleyi* **n. n.** for *pennsylvanica* Buck. nec Roger p. 806, SMITH in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Polyhomoa itoi Azuma published in Hyogo Biol. **1** pp. 35–37 on 10 Jan. 1950; a synonym of *Kyidris mutica* Brown (20 Sept. 1949) pp. 93–95, BROWN & YASUMATSU Mushi **22.**

Prenolepis imparis nitens **var. n.** *liburnica* Italy p. 95, RÖSZLER Zool. Anz. **146.**

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Promyrmecia haematosticta Wh. p. 130, *formosa* Wh. p. 131 raised to spp. and not subspp. of *aberrans* For.; *excavata* p. 137, *dispar* p. 226 New South Wales, *potteri* p. 168, *marmorata* p. 188 Victoria **spp. n.** figs., CLARK Formic. Australia I.

Serrastruma bequaerti ♂ p. 171 fig., CONSANI Boll. Ist. Ent. Bologna **18.**

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Solenopsis (*Diplorhoptrum*) *tennesseensis* **n. n.** for *longiceps* Sm. nec For. p. 814, SMITH in MUESEBECK KROMBEIN & TOWNES Hym. Amer. N. of Mex.

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Stenamma carolinense **sp. n.** N. Carolina p. 156 figs., SMITH Proc. ent. Soc. Wash. **53.**

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Trachymyrmex nogalensis **sp. n.** Arizona p. 109 figs., BYARS Proc. ent. Soc. Wash. **53.**

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Zacryptocerus revision of American spp. pp. 133–142, key p. 136 figs., KEMPF Rev. Ent., Rio de J. **22.**

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Inostemmini of the Jeseníky Mountains, TOMŠÍK Ent. Listy **13** pp. 49–64, 34 figs.

Asolcus Nak. (=*Microphanurus* Kieff.); *nigripedius* ♀ redescription p. 21; *mitsukurii* Ashm. from *Phanurus* p. 22; *gonopsidis* **sp. n.** Japan p. 23 figs., Watanabe Trans. Shikoku ent. Soc. **2.**

Hadronotus hakonensis ♀ redescription p. 24, Watanabe t.c.

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Parinostemma triangulatum **sp. n.** Silesia pp. 49, 59 figs., Tomšík Ent. Listy **13.**

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Platygaster scorpoides **n. n.** for *canadensis* Ashm. nec Prov. p. 714, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Scelio sudanensis p. 115, *remaudierei* p. 116 **spp. n.** Fr. Sudan figs., Ferrière Bull. Soc. ent. Fr. **56.**

Telenomus gifuensis ♂♀ p. 2 figs., Watanabe Trans. Shikoku ent. Soc. **2.**

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(Calliceratidae).

Ceraphron schwarzi **n. n.** for *glaber* Ashm. nec Boh. p. 668, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Diapriidae.

Aclista ashmeadi **n. n.** for *borealis* Ashm. 1902 nec 1893; *brunnipes* **n. n.** for *coloradensis* Kieff. nec Ashm.; *duplicata* **n. n.** for *californiae* Kieff. 1916 nec 1910; *cubitalis* **n. n.** for *clinoneura* Kieff. preocc. p. 686; *flavoris* **n. n.** for *bakeri* Kieff. 1909 p. 369 nec 353; *foutsi* **n. n.** for *canadensis* Fouts nec Ashm. p. 687; *mellicornis* **n. n.** for *ruficornis* Ashm. nec Curt.; *jeannettensis* **n. n.** for *microneurus* Kieff. preocc.; *morula* **n. n.** for *coloradensis* Kieff. nec Ashm.; *paludicola* **n. n.** for *palustra* Fouts preocc.; *pacifica* **n. n.** for *californica* Ashm. preocc. p. 688; *vagabunda* **n. n.** for *klagesi* Kieff. preocc. p. 689, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Auxopaedeutes Brues characters distinguishing from *Bruesopria* p. 204, Wing Trans. R. ent. Soc. Lond. **102.**

Bruesopria **gen. n.**, *seeversi* (type) **sp. n.** N. Carolina p. 195; *americana* Brues from *Solenopsia* p. 197 figs., Wing t.c.

Cinetinae **subfam. n. n.** p. 681, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Cinetus occidentalis **n. n.** for *californica* Kieff. nec Ashm.; *peninsularis* **n. n.** for *floridana* Ashm. preocc.; p. 682; *whittakeri* **n. n.** for *excavata* Whit. nec Kieff. p. 683, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Geodiapria longiceps Kieff. (=*Loxotropa longiceps* Wasm.) p. 208, Wing Trans. R. ent. Soc. Lond. **102.**

Loxotropa longiceps see *Geodiapria longiceps.*

Solenopsia imitatrix redescription p. 200 figs., Wing Trans. R. ent. Soc. Lond. **102.**—*S. americana* see *Bruesopria.*

Trichopria discreta **n. n.** for *tetraplasta* Ashm. 1893 p. 422 nec p. 417, p. 678, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Zygota distans **n. n.** for *californica* Ashm. preocc.; *dupla* **n. n.** for *rufopetiolata* Ashm. nec Nees p. 683; *monticola* **n. n.** for *rufescens* Ashm. preocc. p. 684, Muesebeck & Walkley in Muesebeck, Krombein & Townes t.c.

Proctotrupidae (Serphidae).

Alieniscidae **n. n.** for Alienidae Bridw. p. 90, Benoit Bull. Ann. Soc. ent. Belg. **87.**

Alieniscus **gen. n.**, *arnoldi* **sp. n.** S. Rhodesia p. 91, Benoit Bull. Ann. Soc. ent. Belg. **87.**

Cryptoserphus bruesi **n. n.** for *obsoletus* Brues nec Say p. 665, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Chalcidoidea.

Chalcidoids of Fr. W. Africa, RISBEC Bull. Inst. franç. Afr. noire **13** pp. 1110–1130, 5 figs.

Chalcidoids of Fr. W. Africa, RISBEC Mém. Inst. franç. Afr. noire no. 13 pp. 7–409, 179 figs.

AGAONIDAE.

Apocrypta minima **sp. n.** Senegal p. 389 fig., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Blastophaga wanei **sp. n.** Senegal p. 383 fig., RISBEC t.c.

Ceratosolen dagatiguyi **sp. n.** Ivory Coast p. 1126 fig., RISBEC Bull. Inst. franç. Afr. noire **13.**

Seres longicephala **sp. n.** Senegal p. 381 fig., RISBEC Mém. Inst. franç. Afr. noire no. 13.

TORYMIDAE (CALLIMOMIDAE).

Apocryptophagus bambeyi Senegal p. 318, *dagatiguyi* Ivory Coast p. 331 **spp. n.** figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Goniogaster cadenati p. 325, *bambeyi* p. 328 **spp. n.** Senegal figs., RISBEC t.c.

Idarnes nigra **sp. n.** Ivory Coast p. 1123 fig., RISBEC Bull. Inst. franç. Afr. noire **13.**

Lioterphus senegalensis **sp. n.** Senegal p. 323 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Megastigmus slossonae Crosby (= *americanus* Milliron) p. 172, GAHAN Canad. Ent. **83.**

Otitesella gnaphalocarpae **sp. n.** Senegal p. 332 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Plesiostigmus cadenati **sp. n.** Senegal p. 321 fig., RISBEC t.c.

Podagrion key to Fr. W. African spp. p. 303; *sphodromantidis* (also Ivory Coast) p. 304, *blepharodesi* p. 306, *bambeyi* p. 308, *pseudocreobotrae* p. 309, *gongylusae*, *hoplocoryphae* p. 311, *tarachodesi* (also Ivory Coast) p. 312, *empusae* p. 313, *senegalensis* p. 315, *diospiri* p. 316 **spp. n.** Senegal figs., RISBEC t.c.—*P. coeruleo-viride* Strand (=*brasiliensis* How.) p. 176, GAHAN Canad. Ent. **83.**

Podagrionidae **fam. n.** p. 583, PECK in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Sycoryctes senegalensis **sp. n.** Senegal p. 329, RISBEC Mém. Inst. franç. Afr. noire no. 13.

Torymus floridensis **n. n.** for *robustum* Huber nec Ratz. p. 523, PECK in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

CHALCIDIDAE.

Revision of European Chalcidids (keys p. 14), BOUČEK Acta ent. Mus. nat. Pragae **27** suppl. 1, 108 pp., 17 pls.

Revision of French Haltichellinae, STEFFAN Feuille Nat. (N.S.) **6** pp. 1–7, 81–85, 24 figs.

Anachalcis **gen. n.**, *rubra* **sp. n.** Greece p. 376 fig., STEFFAN Bull. Mus. Hist. nat., Paris (2) **23.**

Anoplochalcidia **gen. n.** type *guineensis* **sp. n.** [not yet described] p. 2, STEFFAN Feuille Nat. (N.S.) **6.**

Antrocephalus hofferi **sp. n.** Hungary p. 54 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** suppl. 1.

Batrochalcis see *Trigonura.*

Belaspidia characters; *meridionalis* **sp. n.** France p. 378 figs., STEFFAN Bull. Mus. Hist. nat., Paris (2) **23.**—*B. obscura* Masi (=*nigra* M.) p. 38 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** suppl. 1.

Brachymeria key to European spp. p. 18; *secundaria* Rusch. (=*tauriensis* Masi) pp. 18, 24; *vicina* Wlk. (=*obtusata* Först.) pp. 18, 27; *minuta* L. (=*tricolor* Först.) p. 28 figs., BOUČEK t.c.—*B. bauhiniae* Sich. from *Phasganophora* p. 150, STEFFAN Bull. Soc. ent. Fr. **55.**

Bucekia **gen. n.** for *Lasiochalcidia differens* Bouček p. 2, STEFFAN Feuille Nat. (N.S.) **6.**

Chalcis myrifex Sulz. (=*Smicra sispes* Tasch.) p. 33, Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.—*C. caudatus* see *Stypiura* ; *tenuicornis* see *Lasiochalcidia dargelasii*.

Chirocera Latr. (=*Hippota* Walk.) p. 47 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.

Euchalcidia aenea F. synonymy, ♀ p. 6 figs., Steffan Feuille Nat. (N.S.) **6**.

Euchalcis characters ; *miegii* ♂ p. 375, Steffan Bull. Mus. Hist. nat., Paris (2) **23**.—*E. miegi* Dufour from *Orthochalcis* pp. 41, 57 ; *nuda* Turkish Armenia, Caucasus p. 59, *hyalipennis* Sinai Peninsula p. 60 **spp. n.** figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.—*E. minor* **sp. n.** Czechoslovakia p. 28 figs., Hoffer Acta Soc. zool. bohemoslov. **14** 1950.—*E. barbara*, *fertoni* see *Neochalcis* ; *rubripes* see *Lasiochalcidia cincticornis*.

Haltichella moderator see *Tanycoryphus*.

Hippota see *Chirocera*.

Hockeria key to European spp. p. 62 ; *magna* Switzerland, Czechoslovakia, Hungary, Rumania, Yugoslavia p. 64, *inopinata* p. 66, *šusterai* p. 67, *hofferi* (also Austria) p. 71 Czechoslovakia, Hungary, *masii* Albania p. 72, *singularis* Sicily, Istria, Austria, Czechoslovakia, Hungary, Greece p. 73 **spp. n.** ; *bifasciata* **f. n.** *erdösi* Czechoslovakia, Hungary p. 70 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.

Hyperchalcidia **gen. n.** for *soudanensis* Steff. p. 2, Steffan Feuille Nat. (N.S.) **6**.

Invreia key to spp. p. 77 ; *clavipes* Rossius (=*nigra* Wlk., *frequens* Masi) p. 80; *mirabilis* **sp. n.** Hungary p. 83 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.—*I.* characters ; *subaenea* Masi (=*Peltochalcidia aspera* Steffan) p. 380, Steffan Bull. Mus. Hist. nat., Paris (2) **23**.—*I.* (*Parinvreia* **subgen. n.**) p. 7, Steffan Feuille Nat. (N.S.) **6**.

Lasiochalcidia Masi (=*Oxycoryphiscus* Ghesq.) p. 5 ; *dargelasii* Latr. (=*Chalcis tenuicornis* Fonsc.) ; *cincticornis* Wlk. (=*Euchalcis rubripes* Kieff.) p. 5, Steffan Feuille Nat. (N.S.) **6**.—*L.* key to Mediterranean spp. p. 98 ; *indescripta* **sp. n.** Czechoslovakia, Hungary, Yugoslavia p. 101 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.—*L. differens* see *Bucekia*.

Leptochalcis see *Psilochalcis*.

Malambrunia see *Tanycoryphus*.

Megalocolus see *Stypiura*.

Neochalcis Kby. (=*Orthochalcis* Kieff. p. 747) ; key to and systematic notes on allied genn. pp. 746–749 ; *hippotoides* Masi from *Orthochalcis* p. 747 ; *barbara* Ben., *fertoni* Kieff. from *Euchalcis* p. 748 figs., Steffan Bull. Mus. Hist. nat., Paris (2) **22**.—*N.* Kby. (=*Orthochalcis* Kieff.) ; key to European spp. p. 41 ; *fertoni* Kieff. (=*Euchalcis barbara* Benoist) ; *f.* **ab. n.** *scutellata* Italy, Istria, Hungary, Czechoslovakia p. 43 ; *hockerioides* **sp. n.** Greece p. 45 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.

Neophasganophora characters p. 376, Steffan Bull. Mus. Hist. nat., Paris (2) **23**.—*N. palestinensis* Palestine, *armeniaca* Turkish Armenia **spp. n.** p. 50 figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.

Orthochalcis see *Neochalcis* ; *miegi* see *Euchalcis*.

Oxycoryphiscus see *Lasiochalcidia*.

Parastypiura **gen. n.** for *Thaumatelia pulchripennis* Ashm. ; *maculata* **sp. n.** Brazil p. 148 figs., Steffan Bull. Soc. ent. Fr. **55**.

Parinvreia **subgen. n.** (type *frequens* Masi) see *Invreia*.—*P.* Steffan raised to gen. p. 380, Steffan Bull. Mus. Hist. nat., Paris (2) **23**.

Peltochalcidia key to spp. ; *nebulosa* Fonsc. (?=*benoisti* Steff.) p. 89 ; *oranensis* Algeria p. 91, *clypeata* Transcaucasia p. 93 **spp. n.** figs., Bouček Acta ent. Mus. nat. Pragae **27** suppl. 1.—*P. aspera* **sp. n.** France p. 5 ; *benoisti* Steff. (=*ferrièrei* S.) p. 6, Steffan Feuille Nat. (N.S.) **6**.—*P. aspera* see *Invreia subaenea*.

Phasganophora characters p. 147, Steffan Bull. Soc. ent. Fr. **55**.—*P. rufiventris*, *thoracica* see *Stypiura* ; *rufitarsis*, see *S. conigastra* ; *bauhiniae* see *Brachymeria*.

Psilochalcidia **gen. n.** type *dentata* **sp. n.** [not yet described] p. 4, STEFFAN Feuille Nat. (N.S.) **6.**

Psilochalcis Kieff. (=*Leptochalcis* K.) p. 3; *longigena* K. (=*filicornis* K.) p. 4, STEFFAN t.c.

Rhynchochalcis further description p. 35; *niger* **var. n.** *madecassus* Madagascar; *senegalensis* p. 36, *retusus* p. 38 **spp. n.** Senegal figs., STEFFAN Bull. Soc. ent. Fr. **56.**

Smicra sispes Tasch. a synonym of *Chalcis myrifex* (q.v.) not *C. sispes* L.

Solenochalcidia **gen. n.** type *bucculenta* **sp. n.** [not yet described] p. 2, STEFFAN Feuille Nat. (N.S.) **6.**

Stypiura Kby. (= ?*Megalocolus* Kby.) characters p. 148; *conigastra* Perty (=*Phasganophora rufitarsis* Cam.); *caudatus* Guér. from *Chalcis*; *rufiventris* Sichel, *thoracica* S. from *Phasganophora* p. 148, STEFFAN Bull. Soc. ent. Fr. **55.**

Tanycoryphus Cam. (=*Malambrunia* Masi) p. 748; *moderator* Wlk. from *Haltichella*; *merisicornis* Masi from *Malambrunia*; *conglobatus* Madagascar p. 749, *clavicornis* (with **var. n.** *rubra* Mozambique p. 752) Senegal p. 751 **spp. n.,** STEFFAN Bull. Mus. Hist. nat., Paris (2) **22.**

Thaumatelia pulchripennis see *Parastypiura.*

Trigonura Sich. (=*Batrochalcis* Kieff.); *reticulata* Kieff. from *Batrochalcis* p. 147, STEFFAN Bull. Soc. ent. Fr. **55.**

Xyphorachidia **gen. n.,** *dentata* **sp. n.** Senegal p. 34 figs., STEFFAN op. cit. **56.**

EURYTOMIDAE.

Aximogastra cultriformis Ashm. from *Bephrata* p. 173, GAHAN Canad. Ent. **83.**

Bephrata aristidae **sp. n.** Senegal p. 356 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.—*B. striatipes* see *Bephratoides*; *cultriformis* see *Aximogastra.*

Bephratoides striatipes Ashm. from *Bephrata* p. 173, GAHAN Canad. Ent. **83.**

Bruchophagus gibbus **subsp. n.** *medicaginis* Poltava p. 70, KOLOBOVA Ent. Obozr. **31** 1950.

Eurytoma key to ♀♀ p. 218; *discordans* (also Canada) p. 220, *acuta* (also Canada) (with **subspp. n.** *acuta* p. 225, *ramosa* p. 229, *absona* p. 230, *gemina* p. 232) p. 223, *terrea* p. 238, *calcarea* (with **subspp. n.** *calcarea* p. 242, *ignobilis* p. 243, *lucida* p. 245, *infima* p. 246, *mimica* p. 247, *singularis* p. 248) p. 240, *longavena* p. 249, *spina* p. 250, *iniquus* p. 253, *spongiosa* p. 254 (with **subsp. n.** *curvavena* p. 257) *flavicrurensa* p. 258, *imminuta* p. 259 **spp. n.**; *incerta* **subsp. n.** *varia* p. 237 U.S.A.; *i.* p. 234 (with subsp. *incerta* p. 236), *obtusilobae* p. 251 redescriptions figs., BUGBEE Ann. ent. Soc. Amer. **44.**—*E. ashmeadi* **n. n.** for *minuta* Ashm. nec Wlk. p. 575, PECK in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.—*E. arabica* ♂ p. 1121, RISBEC Bull. Inst. franç. Afr. noire **13.**—*E.* key to Fr. W. African spp. p. 337; *apantelesi* p. 338, (*Bruchophagus*) *bruchocida* p. 342, (*B.*) *seyali* (with **var. n.** *indigoferae* p. 346) p. 345, *apionidis* p. 346, *crotalariae* p. 348, *cylasaecida* (with **var. n.** *sphenarchi* p. 350) p. 349, *vignae* p. 350, *lepidopterae* p. 351, *acaciae*, *arabica* p. 353, *bambeyi* p. 354, *senegalensis* p. 356 **spp. n.** Senegal figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.—*E. albipes*, *medicaginis* see *Tenuipetiolus*; *cooki* see *Prodecatoma.*

Harmolita neocaptiva **n. n.** for *captivum* How. nec Lint. p. 571, PECK in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Prodecatoma cooki How. (=*phytophaga* Crosby) from *Eurytoma* p. 173, GAHAN Canad. Ent. **83.**

Systole revision of Palaearctic spp. pp. 57–68; *conspicua* **sp. n.** Tunisia p. 61 figs., ERDÖS Folia ent. hungar. (N.S.) **4.**

Tenuipetiolus **gen. n.** p. 37 for *Eurytoma albipes* Ashm. (type) p. 39, *E. medicaginis* Gahan p. 42; key to ♀♀ p. 38; *rubra* p. 39, *mentha* p. **44** **spp. n.** U.S.A. figs., BUGBEE J. Kansas ent. Soc. **24.**

PERILAMPIDAE.

Austroperilampus Dodd (=*Pembertonia* Gah.) not considered synonym of *Meselatus* Gir.; *leai* Dodd (=*P.*

ficicola Gah.) p. 175, Gahan Canad. Ent. **83.**

Fissicrania **gen. n.,** *gigantea* **sp. n.** Senegal p. 299 figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Pembertonia see *Austroperilampus.*

Perilampus braconiphaga p. 369, *brevicornis* p. 371 **spp. n.** Senegal figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Phyllotibia **gen. n.,** *senegalensis* **sp. n.** Senegal p. 374 figs., Risbec t.c.

Eucharidae.

Psilogaster nishidai **sp. n.** Palau Is. p. 292 figs., Ishii & Nagasawa Tenthredo **3** 1941.

Sacharissa viridis **sp. n.** Ivory Coast p. 1128, Risbec Bull. Inst. franç. Afr. noire **13.**—*S. longispina* **sp. n.** Senegal p. 379 figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Stibulaspis striata p. 377, *lougae* p. 379 **spp. n.** Senegal figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Stilbula cyniformis tenuicornis Ashm. (=*ussuriensis* Gussak.) p. 26, Watanabe Trans. Shikoku ent. Soc. **2.**

Eupelmidae.

Anastatus aliberti **var. n.** *bruniptera* ; *longipalpus* **sp. n.** Fr. W. Africa p. 1112, Risbec Bull. Inst. franç. Afr. noire **13.**—*A. apantelesi* p. 192 (with **varr. n.** *nezarae* p. 194, *pseudocreobotrae*), *wanei* p. 195, *bostrychidi* p. 202, *gratidiae* p. 204 Senegal, *aliberti* (with **var. n.** *bruniptera* p. 200) p. 197, *rhynchitidi* p. 200 Ivory Coast **spp. n.** figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Brasema orthopterae p. 214, *brevicollis* p. 217 **spp. n.** Senegal figs., Risbec t.c.

Bruchocida batataephila **sp. n.** Senegal p. 225 figs., Risbec t.c.

Calosoter versicolor p. 247, *aristidae* p. 249 **spp. n.** Senegal figs., Risbec t.c.

Cerambycobius townsendi see *Eupelmus cushmani.*

Charitopus bambeyi p. 218, *curvistylus* p. 220 **spp. n.** Senegal figs., Risbec Mém. Inst. franç. Afr. noire no. 13.—*C. schwarzi* see *Zaischnopsis.*

Eupelmella pedatoria **var. n.** *psychephaga* (as a sp. of *Eupelmus* in fig. leg.) Senegal p. 206 figs.,Risbec Mém. Inst. franç. Afr. noire no. 13.

Eupelminus dagatiguyi **sp. n.** Ivory Coast p. 213 figs., Risbec t.c.

Eupelmus cushmani Cwfd. (= *Cerambycobius townsendi* Cwfd.) p. 172, Gahan Canad. Ent. **83.**—*E. neococcidis* **n. n.** for *coccidis* Gir. 1917 nec 1916 p. 510, Peck in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.—*E. elongatus* (as sp. of *Eupelmella* fig. leg.) p. 208, *sirphidi* p. 211 **spp. n.** Senegal figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Eusandalum bambeyi p. 232, *bicristatum* p. 235 **spp. n.** Senegal figs., Risbec t.c.

Eutrichosomatidae **fam. n.** p. 474, Peck in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Macreupelmus ovicida p. 227, *aliberti* p. 230 **spp. n.** Ivory Coast figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Neanastatus tenuis **var. n.** *bicolor* Senegal p. 236 figs., Risbec t.c.

Pareupelmus **gen. n.** for *Tetracnemus diversicornis* Ruschka nec Westw. p. 112, Kryger Ent. Medd. **26.**

Polymoria halyomorphae p. 243, *curculionis* p. 245 **spp. n.** Senegal figs., Risbec Mém. Inst. franç. Afr. noire no. 13.

Stellophora **gen. n.,** *magnifica* **sp. n.** Senegal p. 239 figs., Risbec t.c.

Tanaostigmatidae **fam. n.** p. 474, Peck in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Tetracnemus diversicornis see *Pareupelmus.*

Zaischnopsis schwarzi Ashm. from *Charitopus* p. 172, Gahan Canad. Ent. **83.**

Encyrtidae

(including Aphelinidae).

Ablerus palauensis **sp. n.** Palau Is. p. 504 fig., Doutt Ann. ent. Soc. Amer. **43.**

Achrysopophagus javanicus p. 188, *annulatus* p. 190 **spp. n.** Egypt figs., Ferrière Bull. Soc. Fouad Ier Ent. **35.**

Aenasioidea demodoci (also Ivory Coast) p. 136, *rigemae* p. 137, *braconiphaga* p. 139, *chionaspidi* p. 140 Senegal, *utetheisae* Ivory Coast p. 141 **spp. n.** figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Aenasius masii **sp. n.** Peru p. 168 figs., DOMENICHINI Boll. Zool. agrar. bachic. Turin **17.**

Anabrolepis oceanica **sp. n.** Palau and Caroline Is. p. 501 figs., DOUTT Ann. ent. Soc. Amer. **43.**—*A. diaspidi* **sp. n.** Senegal p. 172 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Anagyrus characters; *diversicornis* Merc. (=*Philoponectroma opacum* Merc.); *kivuensis* Comp. probably synonym of *bohemani* Westw. p. 545 figs., NIKOL'SKAYA C.R. Acad. Sci. URSS (N.S.) **70** 1950.—*A. adamsoniae* p. 103, *ceroplastae* p. 106, *palaeococci* p. 108, *cordylomerae* p. 111, *bambeyi* p. 114 **spp. n.** Senegal figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.—*A. pseudococci* early stages pp. 158–160 figs., DOMENICHINI Boll. Zool. agrar. bachic. Turin **17.**—*A. alpinus* see *Dinocarsiella.*

Aphelinus mali **var. n.** *crocidolomiae* Senegal p. 392, RISBEC Mém. Inst. franç. Afr. noire no. 13.

Aphycomorpha senegalensis **sp. n.** Senegal p. 143 figs., RISBEC t.c.

Aphycopsis dipterae **sp. n.** Senegal p. 158 figs., RISBEC t.c.

Apterencyrtus Ashm. (=*Chiloneurinus* Merc.), *microphagus* Mayr (=*pulchricornis* Ashm.) p. 171, GAHAN Canad. Ent. **83.**

Blastothrix liorhipnusi **sp. n.** Senegal p. 160 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Cercobelus jugaeus ♀ p. 100, ♂ p. 102 figs., KRYGER Ent. Medd. **26.**

Chiloneurinus see *Apterencyrtus.*

Chiloneurus cocci **sp. n.** Senegal p. 168 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Coccophoctonus abengouroui (sp. n. in 1949) further description p. 145 figs., RISBEC t.c.

Dinocarsiella alpina Gir. (=*zebrata* Merc.) from *Anagyrus* p. 171, GAHAN Canad. Ent. **83.**

Eriaporus Waterst. (=*Eurymyiocnema* Comp.); *laticeps, aphelinoides* distinguishing characters p. 187, FERRIÈRE Bull. Soc. Fouad 1er Ent. **35.**

Eurymyiocnema see *Eriaporus.*

Grandoriella **gen. n.** p. 171, *lamasi* **sp. n.** Peru p. 173 figs., DOMENICHINI Boll. Zool. agrar. bachic. Turin **17.**

Gymnoneura **gen. n.**, *bambeyi* **sp. n.** Senegal p. 157 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Habrolepis caniphila **sp. n.** Senegal p. 170 figs., RISBEC t.c.

Holcencyrtus liriomyzae **sp. n.** Senegal p. 162 figs., RISBEC t.c.

Ixodiphagus hirtus **sp. n.** Maritime Prov. p. 272 figs., NIKOL'SKAYA Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **12** 1950.

Leptomastix Först. (=*Stenoterys* Thoms.) p. 108; *histrio* antennae p. 109 figs., KRYGER Ent. Medd. **26.**

Litomastix sirphidii p. 131, *creona* (also Ivory Coast) p. 133, *piezodori* p. 135 **spp. n.** Senegal figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Metaphycus senegalensis **sp. n.** Senegal p. 155 figs., RISBEC t.c.

Microterys ceroplastodesi **sp. n.** Senegal p. 163 figs., RISBEC t.c.

Paralitomastix gallaephila p. 116, *sylleptae, phytometrae* (also Ivory Coast) p. 119, *homoeoceri* p. 121, *senegalensis* p. 122, *combretae* p. 124, *polyphaga* p. 125 **spp. n.** Senegal figs., RISBEC t.c.

Paraphaenodiscus lycoenephila p. 147, *pavoniae* p. 150 **spp. n.** Senegal figs., RISBEC t.c.

Paraphelinus homopterae **sp. n.** Senegal p. 393 figs., RISBEC t.c.

Philoponectroma opacum see *Anagyrus diversicornis.*

Physcus lougae **sp. n.** Senegal p. 395, RISBEC Mém. Inst. franç. Afr. noire no. 13.

Prochiloneurus palaeococci **sp. n.** Senegal p. 174 figs., RISBEC t.c.

Pteromalomorpha **gen. n.**, *acaciae* **sp. n.** Senegal p. 176 figs., RISBEC t.c.

Schedioides dipterae p. 127, *exochomi* p. 129 **spp. n.** Senegal figs., RISBEC t.c.

Stenoterys see *Leptomastix*.

Tetracnemus diversicornis Westw. redescription p. 119 figs., KRYGER Ent. Medd. **26**.

CLEONYMIDAE.

Ormyrodes see *Solenura*.

Solenura Westw. (=*Ormyrodes* Brues) p. 174, GAHAN Canad. Ent. **83**.

PTEROMALIDAE

(including MISCOGASTERIDAE).

Aplastomorpha vandinei **var. n.** *brasiliensis* Brazil p. 119 figs., DOMENICHINI Boll. Zool. agrar. bachic., Turin **17**.

Bruchobius senegalensis p. 258, *braconiphaga* p. 260, *vignae* p. 263, *arachnephaga* p. 264, *manticida* (with **var. n.** *pilosa* p. 266) p. 265 **spp. n.** Senegal figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

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Lariophagus dryorrhizoxeni Ashm. from *Macroglenes* p. 175, GAHAN Canad. Ent. **83**.

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Neocatolaccus vignae **sp. n.** Fr. W. Africa p. 1118 figs., RISBEC Bull. Inst. franç. Afr. noire **13**.

Parabruchobius **gen. n.**, *senegalensis* **sp. n.** Senegal p. 267 figs., RISBEC Mém. Inst. franç. Afr. noire no. 13.

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Perithous brunnescens **sp. n.** Netherlands pp. 246, 249, KOORNNEEF Ent. Ber., Amst. **13.**

Phygadeuon insulanus **sp. n.** Borkum I. p. 678, HEDWIG Abh. naturw. Ver. Bremen **31** 1939.

Pimpla videonis **sp. n.** Uruguay p. 372 fig., DA COSTA LIMA Papéis avulsos Dep. Zool. S. Paulo **9.**

Pristomerus austrinus **n. n.** for *agilis* Cress. preocc. p. 386, TOWNES & TOWNES in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Protichneumon attentatorius **sp. n.** Maritime Prov. p. 248, KUZIN Ent. Obozr. **31** 1950.

Pseudamblyteles indocilis redescription of ♂ p. 28, HEINRICH Nachr. naturw. Mus. Aschaffenburg Heft 31.

Schenkia rubricollis, opaculus ♂♂ p. 288, HEINRICH Bonn. zool. Beitr. **2.**

Sphinctus agraensis **sp. n.** India p. 71, RAO & CHANDY KURIAN Indian J. Ent. **13.**

Spilocryptus caudifer **sp. n.** Austria p. 284, HEINRICH Bonn. zool. Beitr. **2.**

Stauropoctonus Brauns (=*Nipponophion* Uch.); *bombycivorus* Grav. (=*N. coreanus* Uch.) p. 126, UCHIDA Insecta matsum. **17.**

Stenichneumon alpicola Kriechb. (=*fulvotibiatus* Pfeff.) p. 254, HEINRICH Bonn. zool. Beitr. **2.**—*S. rufinus* coloration p. 30, HEINRICH Nachr. naturw. Mus. Aschaffenburg Heft 31.—*S. regius* **sp. n.** Finland p. 28, HELLÉN Notul. ent. **31.**

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Strongylopsis belua **sp. n.** Kazakstan p. 252 fig., KUZIN Ent. Obozr. **31** 1950.

Trychosis pictulus **sp. n.** Austria p. 287, HEINRICH Bonn. zool. Beitr. **2.**

Tylocomnus rossicus **sp. n.** Saratov p. 251, KUZIN Ent. Obozr. **31** 1950.

Xorides holsaticus **sp. n.** Germany p. 48, HEINRICH Nachr. naturw. Mus. Aschaffenburg Heft 30.

BRACONIDAE.

Braconids of the Sagan-Omo Expedition, MASI Ann. Mus. Stor. nat. Genova **64** pp. 310–326, 6 figs.

Microgasterinae of Fr. W. Africa, RISBEC Mém. Inst. franç. Afr. noire no. 13 pp. 413–473, 46 figs.

Braconids of Tadzhikistan, TELENGA Ent. Obozr. **30** 1949 pp. 381–388, 1 fig.

Acrobela tachinae see *Glyphogaster.*

Agathirsia cressoni **n. n.** for *thoracicus* Cress. nec Nees p. 116, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Agathis cupressi **n. n.** for *parvus* Mues. nec Vier. p. 119, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES t.c.

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Bracon velbingeri **sp. n.** S. Bulgaria p. 67, Fahringer Beitr. Ent. Berl. **1.**—*B. spurnensis* **sp. n.** England p. 232 fig., Hincks Ent. mon. Mag. **87.**—*B. tenuis* **n. n.** for *ashmeadi* Mues. nec Morr. p. 168, Muesebeck & Walkley in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.—*B. maculiger* **var. n.** *asiaticus* Tadzhikistan p. 383, Telenga Ent. Obozr. **30** 1949.

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Cratospila circe Hal., *annellata* Thoms. distinguishing characters p. 142, Stelfox Ent. mon. Mag. **87.**

Dolops hastifer, *aculeator* see *Dolopsidea indagator*.

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Hypodoryctes sibiricus further description p. 96, Watanabe Insecta matsum. **17.**

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Miocolus bruesi **n. n.** for *americanus* Brues nec Ashm. p. 182, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

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Parabaeacis grangeri **sp. n.** Belg. Congo p. 126, BENOIT Rev. Zool. Bot. afr. **45.**

Paroligoneurus agromyzae **sp. n.** Senegal p. 465 fig., RISBEC Mém. Inst. franç. Afr. noire no. 13.

Phanerotoma key to Centr. European spp. p. 7; (*Unica* **subgen. n.**); (*U.*) *moravica* p. 9, *gregori* p. 13, *platypyga* p. 15, *atra* p. 18, *antennalis* p. 20, *minor* p. 22, *picta* p. 24, *obscura* p. 27 **spp. n.** Czechoslovakia figs., ŠNOFLÁK Ent. Listy **13.**—*P. tibialis, fasciata* distinguishing characters p. 302; *thapsina* Texas p. 305, *longicauda* Quebec, U.S.A. p. 306 **spp. n.**, WALLEY Canad. Ent. **83.**

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Philomacroploea pleuralis ♂ p. 98, WATANABE Insecta matsum. **17.**

Pioscelus **gen. n.** for *Hedysomus wichitus* Vier. (=*Heterospilus beameri* Rohw.) p. 180, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Rhaconotus cressoni **n. n.** for *aciculatus* Cress. nec Ruthe p. 181, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES t.c.

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Russellella **n. n.** for *Russellia* Mues. nec Varg. p. 178, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES t.c.

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Spathius dignus **n. n.** for *fasciatus* Prov. nec Wlk. p. 169, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Streblocera supplement to revision p. 102, WATANABE Insecta matsum. **17.**

Triaspis sayi **n. n.** for *thoracicus* Say nec Nees p. 114, MUESEBECK & WALKLEY in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Tropobracon Cam. (=*Shirakia* Vier.) p. 100, WATANABE Insecta matsum. **17.**

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APHIDIIDAE.

Aphidius Nees proposal to Int. Comm. zool. Nomen. for validation pp. 18–19, HINCKS Bull. zool. Nomen. **2**; ESSIG p. 20.

Myrmecobosca eikoae **sp. n.** Japan p. 172 figs., YASUMATSU Rev. franç. Ent. **18.**

EVANIIDAE.

Evaniidae of Parc nat. Albert, Belg. Congo, BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73 pp. 19–25.

Taxonomy of British Evanioidea, CROSSKEY Trans. R. ent. Soc. Lond. **102** pp. 282–300, 31 figs.

Aulacus striatus final instar larva p. 272 figs., SHORT Ent. mon. Mag. **87.**

Prosevania wittei **sp. n.** Belg. Congo p. 21, BENOIT Explor. Parc nat. Albert, Miss. de Witte 1933–35 fasc. 73.

STEPHANIDAE.

Stephanids of Madagascar, BENOIT Mém. Inst. sci. Madagascar **5A** pp. 269–284, 19 figs.

Diastephanus key to Congo spp.; *sangalensis* **sp. n.** Congo p. 123, BENOIT Rev. Zool. Bot. afr. **45.**

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Tenthredinoidea, etc.

British Symphyta, with keys, Benson Handb. Ident. Br. Ins. **6** pt. 2 (a) 49 pp. 127 figs.

Catalogue of Tenthredinids of N. France, Cavro Bull. Soc. ent. N. France Suppl. no. 58 66 pp.

Notes on Australian Orussidae, Rayment Vict. Nat. **68** pp. 92–96, 111–119, 2 pls. 1 fig.

Symphyta of Japan, IV, Takeuchi Tenthredo **3** 1941 pp. 230–274, 3 figs.

Acanthocnema Costa 1859 proposal to Int. Comm. zool. Nomen. for suppression p. 46, Benson Bull. zool. Nomen. **2.**

Acantholyda Costa 1894 proposal to Int. Comm. zool. Nomen. for validation p. 46, Benson t.c.—*A. nemoralis* characters pp. 29–38, early stages pp. 38–52 figs., Roberti Boll. Lab. Ent. agr. Portici **10.**

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Aneugmenus japonicus ♂ p. 260; *maculatus* corrected description; *gressitti* **sp. n.** Formosa p. 261, Takeuchi t.c.

Arge cyanocrocea larva p. 133 fig., Pasteels Bull. Ann. Soc. ent. Belg. **87.**—*A. nigrinodosa* larva p. 17; compared with *pagana* p. 22 figs., Tokunaga, Tsujita & Yamazaki Mushi **22.**

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Brachythops flavens larva p. 134, Pasteels Bull. Ann. Soc. ent. Belg. **87.**

Busarbidea japonica **sp. n.** Japan p. 273, Takeuchi Tenthredo **3** 1941.

Distega luteipes ♂ p. 197, Pasteels Bull. Ann. Soc. ent. Belg. **87.**

Distegella **gen. n.** p. 197, *velutina* **sp. n.** Belg. Congo p. 198, Pasteels t.c.

Dolerus anticus larva p. 193, Andrewes Ent. mon. Mag. **87.**

Dulophanes Konow (=*Phanodules* Past.), *atratus* Ensl. (=*tenuis* P.); *abdominalis* E. (=*flaviventris* P.) p. 205, Pasteels Bull. Ann. Soc. ent. Belg. **87.**

Empria rubi **sp. n.** Finland p. 24 figs., Kontuniemi Acta ent. fenn. **9.**

Guiglia queenslandensis **subsp. n.** *coronatus* New South Wales p. 111, Rayment Vict. Nat. **68.**

Hemitaxonus tokunagai **sp. n.** Japan p. 248, Takeuchi Tenthredo **3** 1941.

Melisandra see *Nesoselandria.*

Messa anita see *Nefusa.*

Neacidiophora maxima ♂ p. 200, Pasteels Bull. Ann. Soc. ent. Belg. **87.**

Nefusa **gen. n.** for *Messa anita* MacG. p. 31, Ross in Muesebeck, Krombein & Townes Hym. Amer. N. of Mex.

Nefusini **trib. n.** p. 31, Ross in Muesebeck, Krombein & Townes t.c.

Nematus (*Pteronidea*) *currani* **n. n.** for *nigriventris* Curr. preocc. p. 45, Ross in Muesebeck, Krombein & Townes t.c.

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Neocolochelyna itoi **sp. n.** Japan p. 62, TAKEUCHI Trans. Shikoku ent. Soc. **2.**

Neostromboceros gracilis p. 253, *yakusimensis* p. 254, *sinanensis* p. 256, *nipponicus* p. 257 **spp. n.** Japan; *leucopoda* Rohw. (=*fuscitarsis* Takeuchi) p. 255; *albofemoratus* ♂ p. 256; *sauteri* R. (=*kagiensis* T.) from *Stromboceros* p. 257, TAKEUCHI Tenthredo **3** 1941.

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Orussobaius normani **sp. n.** New South Wales p. 113, RAYMENT Vict. Nat. **68.**

Pachynematus anolita **n. n.** for *apicalis* Marl. nec Hart. p. 39, Ross in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Parabates see *Setabara*.

Parastromboceros **gen. n.** for *Stromboceros filicis* Malaise p. 250 fig., TAKEUCHI Tenthredo **3** 1941.

Phanodules see *Dulophanes*.

Pleroneura borealis early stages p. 181, WEBB & FORBES Canad. Ent. **83.**

Pseudostromboceros **gen. n.** for *Stromboceros atratus* Ensl. p. 268, TAKEUCHI Tenthredo **3** 1941.

Pseudotaxonus secundus larva p. 8 figs., OKUTANI Kontyû **19.**

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Rhogogaster chambersi larva p. 203 figs., CHAMBERS Ent. mon. Mag. **87.**

Setabara **n. n.** for *Parabates* MacG. preocc. p. 31, Ross in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

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Stromboceros delicatulus **var. n.** *albiceps* Japan p. 250, TAKEUCHI Tenthredo **3** 1941.—*S. sauteri* see *Neostromboceros*; *atratus* see *Pseudostromboceros*; *filicis* see *Parastromboceros*.

Strongylogaster onocleae **sp. n.** Japan p. 240; *moiwanus* ♀ p. 242; *blechni* Takeuchi (=*vaginator* Mal.) p. 244, TAKEUCHI Tenthredo **3** 1941.

Tenthredella picticornis ♀ p. 59, TAKEUCHI Trans. Shikoku ent. Soc. **2.**

Tenthredo longipennis Mats. (=*grandiceps* Mal.); *flavipectus* Mats. (=*xanthomelaena* Ensl.) p. 60, TAKEUCHI t.c.—*T. ocampa* **n. n.** for *nigrilabris* Rohw. nec Friw.; *retura* **n. n.** for *nigriceps* Cress. nec Spin. p. 71; *cryptella* **n. n.** for *limbatus* Cress. nec Klug; *mantha* **n. n.** for *lobata maculosa* Smul. nec Lep. p. 73; *vellosa* **n. n.** for *formosus* Nort. nec Klug p. 77, Ross in MUESEBECK, KROMBEIN & TOWNES Hym. Amer. N. of Mex.

Tesslinia **gen. n.** for *Blennocampa afra* Ensl. p. 203, PASTEELS Bull. Ann. Soc. ent. Belg. **87.**

Thrinax abdominalis further description p. 235; *longicornis* p. 237, *osmundae* p. 238 **spp. n.** Japan fig., TAKEUCHI Tenthredo **3** 1941.

Tremex hyalinatus see *Afrotremex*.

Trisodontophyes nigroflava further description p. 200; *confusa* **sp. n.** Fr. & Belg. Congo p. 201; *angustata* further description p. 202, PASTEELS Bull. Ann. Soc. ent. Belg. **87.**

Xenapates bifovealis ♀ p. 199, PASTEELS t.c.

LEPIDOPTERA.

An annotated list of Lepidoptera of Alberta, BOWMAN Canad. J. Zool. **29** pp. 121–165, 1 map.

Lepidoptera of Ammat, Latvia, BRANDT KorrespBl. Naturf. Ver. Riga **64** 1942 pp. 231–245.

Lepidoptera of High Tatras, BRČÁK Acta Soc. ent. Čsl. **48** pp. 167–178, 3 figs.

List of Lepidoptera from Macedonia, Daniel, Forster & Osthelder Veröff. zool. Staatssamml. München **2** pp. 1–78, 2 pls.

Faunistic notes on Netherlands Lepidoptera, Graaf Bentinck Tijdschr. Ent. **94** pp. 327–337.

Important Lepidoptera of Czechoslovakia, Gregor & Povolný Acta Soc. ent. Čsl. **48** pp. 74–80, 11 figs.

Additions to list of Lepidoptera of Hanover, Gross Jber. naturhist. Ges. Hannover **99–101** 1950 pp. 183–321.

Some Lepidoptera from Brandenburg, Haeger Z. Lepid. **1** pp. 157–158.

Lepidoptera collected by Reymond & Pierre at Beni-Abbès, Algerian Sahara, Herbulot & Viette Rev. franç. Lép. **13** pp. 89–96.

Some new and rare Lepidoptera in N.E. Bohemia, Hrubý Acta Soc. ent. Čsl. **48** pp. 80–85.

Observations on New Zealand Lepidoptera, Hudson Fragm. N.Z. Ent. [1951] pp. 66–115.

Some Lepidoptera from Wangeroog, E. Frisian Is., Jäckh Z. Lepid. **1** pp. 119–122.

Lepidoptera of Trentino, Klimesch Studi Trentini Sci. nat. **27** 1950 pp. 11–68, 10 pls. 2 figs.

Lepidoptera of Turkey, I, II, de Lattin Rev. Fac. Sci. Univ. Istanbul **15B** 1950 pp. 301–331; **16B** 1951 pp. 45–73, 3 pls. 17 figs.

List of the Lepidoptera of Bolivar, Argentina, Llano Rev. Soc. ent. argent. **15** pp. 182–186.

Key to families of Lepidopterous larvae, Luh Ann. ent. sinici **1** pp. 321–340, 11 figs. [in Chinese].

Some Macrolepidoptera from Norway, Opheim Norsk ent. Tidsskr. **8** pp. 207–217, 3 figs.

Common butterflies and moths of Madagascar, Paulian Publ. Inst. Rech. sci. Tananarive Hors Sér. 90 [+1] pp. 41 pls. (6 col.) 5 figs.

Additions to list of Lepidoptera of Lower Austria, Reisser Z. wien. ent. Ges. **36** pp. 117–119.

List of Lepidoptera from N.W. Enontekis, Finland, Schantz & Bruun Notul. ent. **31** pp. 109–118, 1 map.

Macrolepidoptera of the nature reserve park, Lüneburg Heath, Germany, Schroeder Abh. naturw. Ver. Bremen **31** 1941 pp. 763–785, 1 fig.

Supplement to Lepidoptera of Borkum I., Struve Abh. naturw. Ver. Bremen **31** 1941 pp. 554–557.

Lepidoptera of Mt. Olympus, Greece, Toulechkoff Bull. Inst. zool. Acad. bulg. Sci. **1** pp. 305–328, 3 figs.

Lepidoptera of Hanover, Troeder Beitr. Naturk. Niedersachs. no. 1 1948 pp. 26–30; no. 5 1949 pp. 20–21.

Some Lepidoptera from Fr. Equatorial Africa, Villiers & Dekeyser Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2 pp. 23–28.

Lepidoptera of a Tigris island, Iraq, Wiltshire J. Bombay nat. Hist. Soc. **49** pp. 652–660, 1 fig.

Rhopalocera.

Rhopalocera of Port. Guinea, Bacelar An. Junta Invest. colon. Lisboa (Zool.) **4** 1949 pp. 71–104.

Butterflies of Australia and New Guinea, Barrett & Burns x & 187 pp. 18 pls. (8 col.) 14 figs.

Grypocera and Rhopalocera of France valid under the Rules, Bernardi, Herbulot & Picard Rev. franç. Lép. **12** pp. 329–334.

Revision of forms and abb. in Catalogue of Rhopalocera in N.E. France, Caruel Rev. franç. Lép. **13** pp. 84–87, 117–121.

Butterflies of Virginia, Clark A. H. & L. F. Smithson. misc. Coll. **116** no. 7, 239 pp. 30 pls. 1 col. frontisp. 1 map.

List of Liberian Rhopalocera collected by Dekeyser & Holas in 1948, Condamin Bull. Inst. franç. Afrique noire **13** pp. 788–797.

Synonymic catalogue of Argentine Rhopalocera, excl. Hesperiids, Hayward Acta zool. lilloana **9** [preprint 1950] pp. 85–271.

Butterflies of Centr. Brazil, III, JUSTINO Bol. Inst. geobiol. La Salle no. 5 pp. 16–17.

Systematic notes on some butterflies from China, KLEINSCHMIDT Bonn. zool. Beitr. **1** pp. 276–285, 2 figs.

Butterflies of N. America, east of Great Plains, KLOTS Field Guide Butterfl. N. Amer. . . . xvi & 349 pp. 40 pls.

Sexual organs of butterflies as taxonomic characters, LAMBERT Ann. ACFAS **17** pp. 150–154.

Rhopalocera of the Swiss Mission to the Cameroons, 1947, MONARD Mém. Inst. franç. Afr. noire Cent. Cameroun Sci. nat. no. 1 pp. 233–235.

Identity of some Italian butterflies and notes on localities of De Prunner's "Lepidoptera pedemontana", ROCCA Boll. Soc. ent. ital. **81** pp. 56–61.

Additions to Bates' "Butterflies of Cuba", DE LA TORRE Y CALLEJAS Lep. News **4** p. 72.

Butterflies of N. & Centr. Sudan, WILSON Sudan Notes & Rec. **30** 1949 pp. 222–244, 9 pls.

Butterflies of Ceylon, 2nd abridged edn., WOODHOUSE 1950 xvi & 131 pp. 48 pls. (36 col.) 8 figs. 1 frontisp.

DANAIDAE.

Danaidae of Moçambique, BACELAR An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 115–116.

Revision of Italian Danaidae, VERITY Farfalle Diurne Ital. **4** 1950 pp. vi & 8–13, illus.

Aprotopos ceto **subsp. n.** *cetoides* Peru p. 671, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Danaus supplement to list of Cuban spp. pp. 93–103, DE LA TORRE Y CALLEJAS Mem. Soc. cubana Hist. nat. **20.**—*D. plexippus* nomenclature and name of N. American Monarch pp. 68–70, FIELD, CLARKE & FRANCLEMONT; pp. 728–729, FERREIRA D'ALMEIDA & OITICICA Science **113.**

Hypoleria goiana p. 190, *jaruensis* p. 191, *clerioides, brevicula* p. 193, *jamariensis* p. 194, *chresta* **spp. n.** Brazil; *fausta* ♀ p. 195 figs., FERREIRA D'ALMEIDA Rev. Soc. ent. argent. **15.**

Leucothyris polymacula **sp. n.** Peru p. 673, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Mechanitis systematic notes on Centr. & S. American spp. pp. 1–10; *egaënsis* **subsp. n.** *obumbrata* p. 10; *travassosi* p. 11, *oiticicai* p. 12, *foxi* p. 14 **spp. n.**; *fallax* **subsp. n.** *pothetoides* p. 13 Brazil; catalogue p. 16 figs., FERREIRA D'ALMEIDA Bol. Mus. nac. R. de J. (N.S.) Zool. no. 100.

Melinaea systematic notes on S. American spp. pp. 18–20; *mayi* p. 20, *acreana* p. 22 **spp. n.**; *madeira* **subsp. n.** *aequatoriensis* p. 23; *hicetas* **subsp. n.** *eryx* p. 24 Brazil; catalogue p. 26 figs., FERREIRA D'ALMEIDA t.c. —*M. orestes* **f. n.** *clara* Peru p. 672, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Napeogenes seminigra **sp. n.** Peru p. 672, ROSEBERG & TALBOT t.c.—*N. jamariensis* p. 198, *gryne* p. 200 **spp. n.** Brazil figs., FERREIRA D'ALMEIDA Rev. Soc. ent. argent. **15.**

SATYRIDAE.

Satyridae of Moçambique, BACELAR An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 117–118.

Satyridae of France and N. Africa (contd.), VARIN Rev. franç. Lép. **12** pp. 341–347.

Antirrhaea watkinsi **sp. n.** Peru p. 679, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Arethusana **gen. n.** for *Satyrus arethusa* Esp. p. 40, DE LESSE Rev. franç. Lép. **13.**

Berberia **gen. n.** for *Satyrus abdelkader* Pierret p. 41, DE LESSE t.c.

Callitaera mimica **sp. n.** Colombia p. 677, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Cithaerias pireta Cram. (=*menander* Drury) p. 495; *rubina* Fassl., *bandusia* Staud., reduced to ff. of *esmeralda* Dbldy. p. 496; *similigena* p. 498, *juruaënsis* **spp. n.** Brazil; catalogue of Central & S. American spp. p. 499, distribution list p. 501 figs., FERREIRA D'ALMEIDA Arq. Zool. São Paulo **7.**

Coenonympha pamphilus **subsp. n.** *neolyllus* Turkey p. 319 fig., DE LATTIN Rev. Fac. Sci. Univ. Istanbul **15B** 1950.—*C. iphis gallica* characters p. 128 figs., DE LAEVER Rev. franç. Lépidopt. **13.**

Dulcedo **gen. n.** for *Haetera polita* Hewit. p. 501 fig., FERREIRA D'ALMEIDA Arq. Zool. São Paulo **7.**

Erebia epistygne **f. n.** *gentyi* France p. 108, DROIT Rev. franç. Lépidopt. **13.**—*E. semo* Gr.-Grsh. distinct from *fasciata* Btlr. p. 73, WARREN Entomologist **84.**—*E. euryale adyte* **ab. n.** *bedei* France p. 231, LORITZ Entomologist **84.**—*E. ligea* **subsp. n.** *arsenjevi* Maritime Prov. p. 243, KURENTZOV Ent. Obozr. **31** 1950.—*E. pandrose* & subsp. *sthennyo* morphology p. 260 figs., DE LESSE Vie et Milieu **2.**—*E. epiphron* forms in Vosges, Auvergne & Pyrenees pp. 3–9 (with **r. n.** *mixta* France p. 8) figs., DE LESSE Rev. franç. Lép. **13.**

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Henotesia aberrans p. 392, *benedicta* p. 394 **spp. n.** Madagascar figs., PAULIAN Mém. Inst. sci. Madagascar **6A.**

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Karanasa revision pp. 1–217; *nigrocellata* p. 47, *haslundi* p. 122, *haarlovi* p. 124 Afghanistan, *hodja* p. 52, *hunza* p. 93, *kafir* p. 121 Hindu Kush, *grumi* p. 53, *maureri* p. 61, *iskander* p. 62, *maidana* p. 64, *darwasica* p. 72 Bokhara, *mushketovi* p. 55, *roborovskyi* p. 56, *oshanini* p. 73, *erubescens* p. 87, *jakobsoni*, *alitchura* p. 88, *centralis* p. 89, *mihmana* p. 93, *holbecki* p. 118 Pamirs, *hissariensis* Hissar Mts. p. 64, *angrena* p. 74, *arasana* p. 75, *durana* p. 83, *kirgizorum* p. 84, *obscurior* p. 97, *occidentalis* p. 98, *eburnea* p. 105, *naryna* p. 113, *lactaea* p. 114 Kirghizia, *praestans* Syr Daria p. 77, *kasak* Kazakstan p. 78, *robusta* p. 82, *ornata* p. 117 Alai, *gregorii* Karakoram p. 90, *ruckbeili* Djarkent p. 100, *aksuensis* Chinese Turkestan p. 102, *dubia* p. 127, *gemina* p. 130, *expressa* p. 133, *rohtanga* p. 147 India, *baltorensis* Baltistan p. 132 **spp. n.**; *regeli* **ff. n.** *arpensis*, *turugensis* Tian Shan Mts. p. 105 figs., AVINOFF & SWEADNER Ann. Carnegie Mus. **32.**

Lymanopoda umbratilis (with **ff. n.** *intermedia*, *leucotecta* p. 681) p. 680, *caudalis* p. 681 **spp. n.** Peru, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Melanargia galathea **ab. n.** *valentini* England p. 247 figs., WILLIAMS Ent. Gaz. **2.**—*M. syllius* **subsp. n.** *moghrebiana* Moyen Atlas p. 345; *japygia* **subsp. n.** *caussica* France p. 346, VARIN Rev. franç. Lép. **12.**

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Pierella albofasciata **sp. n.** Peru p. 678, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Pseudochazara **gen. n.** for *Satyrus pelopea* Klug p. 42, DE LESSE Rev. franç. Lép. **13.**

Pseudotergumia reduced to subgen. of *Hipparchia*, q.v.

Satyrus statilinus **subsp. n.** *burgeffi* Macedonia p. 9, FORSTER in DANIEL, FORSTER & OSTHELDER Veröff. zool. Staatssamml. München **2.**—*S. arethusa* see *Arethusana*; *abdelkader* see *Berberia*; *pelopea* see *Pseudochazara*.

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Nymphalidae of Moçambique, BACELAR An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 118–126.

The types of Frühstorfer's Palaearctic Nymphalidae in Laboratoire d'Entomologie, Paris, BERNARDI & DE LESSE Bull. Soc. ent. Fr. **56** pp. 136–143.

Nymphalids of Marshall Is., CLARK Proc. ent. Soc. Wash. **53** pp. 43–44.

Revision of Italian Apaturidae (pp. viii–x & 13–34), Nymphalidae (pp. x–xx & 34–371), VERITY Farfalle Diurne Ital. **4** 1950, illus.

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Anaea echemus **f. n.** *aguayoi* Cuba p. 336 figs., DE LA TORRE Y CALLEJAS Proc. ent. Soc. Wash. **53.**

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Vanessa cardui f. *albicans* **n. n.** for *carduelis* Schultz nec Cram. p. 331, VERITY Farfalle Diurne Ital. **4** 1950.

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Lycaenidae collected in Tibesti, Sahara, BERNARDI & STEMPFFER Bull. Soc. ent. Fr. **56** p. 48.

Wing pattern of Palaearctic Lycaenids, SHVANVICH Ent. Obozr. **30** 1949 pp. 266–275, 15 figs.

Theclinae of Japan, SIBATANI & ITO Tenthredo **3** 1942 pp. 299–334, 22 figs.

Anthene talboti ♀ p. 127, STEMPFFER Bull. Soc. ent. Fr. **56.**

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Aphanaeus bruneeli **sp. n.** Belg. Congo p. 55, BERGER Rev. Zool. Bot. afr. **45.**

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Iolaus bolissus **subsp. n.** *gabonensis* Gaboon p. 125, STEMPFFER Bull. Soc. ent. Fr. **56.**

Iratsume **gen. n.** for *Thecla orsedice* Butl. p. 329, SIBATANI & ITO Tenthredo **3** 1942.

Lepidochrysops victoriae **subsp. n.** *vansomereni* p. 69; *desmondi* **sp. n.** p. 70 Kenya fig., STEMPFFER Bull. Soc. ent. Fr. **56.**

Liptena rochei **sp. n.** Nigeria p. 66 fig., STEMPFFER t.c.

Lycaeides idas subsp. *corsica* Tutt (=*bellieri* Obth.) p. 30, BERNARDI Bull. Soc. ent. Fr. **56.**

Lycaena optilete ♀ forms p. 137 figs., SCHULTZ Ent. Z. **60** 1950.—*L. labradus* early stages p. 68 figs., HUDSON Fragm. N.Z. Ent. [1951].

Lysandra pulchella **n. n.** for *pulchra* Shelj. nec Murray p. 30, BERNARDI Bull. Soc. ent. Fr. **56.**—*L. hispana* rr. pp. 99–101, DUJARDIN Lambillionea **50.**

Maculinea French spp. pp. 16–18 figs., BERNARDI Rev. franç. Lép. **13.**

Mitoura gryneus **var. n.** *octoscripta* New Jersey p. 78, BUCHHOLZ Bull. Brooklyn ent. Soc. **46.**—*M. hesseli* immature stages p. 123 figs., RAWSON, ZIEGLER & HESSEL Bull. Brooklyn ent. Soc. **46.**—*M. siva* **subsp. n.** *mansfieldi* California p. 93 figs., TILDEN Bull. S. Calif. Acad. Sci. **50.**

Neozephyrus **gen. n.** for *Thecla taxila* Brem. (type) and other spp. p. 324, SIBATANI & ITO Tenthredo **3** 1942.

Neurellipes quadricaudata B.-B. from *Triclema* p. 68 fig., STEMPFFER Bull. Soc. ent. Fr. **56.**

Paralucia aenea **subsp. n.** *lucida* Victoria p. 225 figs., CROSBY Vict. Nat. **67.**

Plebeius saepiolus **r. n.** *whitmeri* Colorado p. 286 ; colour and size as distinguishing characters of races p. 288, BROWN Ann. ent. Soc. Amer. **44.**

Poritia erycinoides larva, pupa p. 26, ROSIER Idea **9.**

Shirozua **gen. n.** for *Thecla jonasi* Jans. (type) and *comes* Leech p. 322, SIBATANI & ITO Tenthredo **3** 1942.

Strymon lynceus **subsp. n.** *anatolicus* Turkey p. 322 fig., DE LATTIN Rev. Fac. Sci. Univ. Istanbul **15B** 1950. —*S.* (*Nordmania*) *esculi* (with **f. n.** *fulvomaculata* France), (*N.*) *ilicis* distinguishing characters p. 15 figs., BEURET Ver. Nachr. Ent.-Ver. Basel **7** 1950.—*S. cecrops* immature stages p. 81 figs., RAWSON & HESSEL Bull. Brooklyn ent. Soc. **46.**

Thecla (*Zephyrus*) list of known spp. and their descriptions with their present designations pp. 329–332, SIBATANI & ITO Tenthredo **3** 1942. —*T. enthea* see *Araragi* ; *attilia, butleri* see *Antigius* ; *signata* see *Wagimo* ; *jonasi, comes* see *Shirozua* ; *taxila* see *Neozephyrus* ; *orsedice* see *Iratsume.*

Thestor dukei p. 439, *holmesi* p. 441, *strutti* p. 444 **spp. n.** S. Africa figs., VAN SON Ann. Transv. Mus. **21.**

Triclema quadricaudata see *Neurellipes.*

Uranothauma vansomereni **sp. n.** Kenya p. 128 fig., STEMPFFER Bull. Soc. ent. Fr. **56.**

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Wagimo **gen. n.** for *Thecla signata* Butl. p. 319 fig., SIBATANI & ITO Tenthredo **3** 1942.

Zephyrus see *Thecla.*

PIERIDAE.

Pieridae of Moçambique, BACELAR An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 109–115.

Pieridae collected in Tibesti, Sahara and Mortcha, Fr. Equat. Africa, BERNARDI & STEMPFFER Bull. Soc. ent. Fr. **56** pp. 47–48.

Pieridae of S. China, MELL Zoologica, Stuttgart **36** 1943 Heft 100, 132 pp. 3 pls. (1 col.) 3 figs., 4 fldg. tables.

Anaphaeis j. java typical subsp. from Noord I., S. Sumatra, Java p. 70, TOXOPEUS Idea **8.**

Belenois creona subsp. *prorsus* (with **f. n.** *antonii* Madagascar p. 156) characters p. 155 figs., BERNARDI Nat. malgache **3.**

Cepora nerissa **subsp. n.** *yunnanensis* Yunnan p. 98 figs., MELL Zoologica, Stuttgart **36** 1943 Heft 100.

Colias gender of name, OAKES Entomologist **84** p. 119 ; HOPKINS pp. 175–176.—*C.* speciation pp. 90–98 figs., WARREN Lambillionea **50.**—*C. australis* Vrty. valid sp. pp. 2–6, 17–20, 24–27 figs., BEURET Mitt. ent. Ges. Basel (N.F.) **1.**—*C. croceus* ab. *helice* colour forms p. 47, GOODSON Ent. Rec. **63.**

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Delias belladonna kwangtungensis **f. n.** *pekiangensis* ; *subnubila* **subsp. n.** *conspicua* p. 93 ; *aglaia porsenna* **f. n.** *nigricans* p. 94 S. China figs., MELL Zoologica, Stuttgart **36** 1943 Heft 100.

Dismorphia orise **subsp. n.** *denigrata* Peru etc. p. 671, ROSENBERG & TALBOT Trans. ent. Soc. Lond. **1913** 1914.

Eurema revision of subgen. *Teriocolias* pp. 359–373, key p. 360 ; *pacis* Röb. (=*plesseni* R.) p. 361 ; *zelia* Lucas (=*flavia* Burm., *meridionalis* Jörg.) p. 364 ; *riojana* Giac. (=*shiptoni* Jörg.) from *Terias* p. 368 ; *kuscheli* Ureta a subsp. of *riojana* p. 371 ; *r.* **subsp. n.** *mathani* Peru p. 372 figs., FIELD Acta zool. lilloana **9** [preprint 1950].—*E.* revision of Madagascan spp. pp. 139–154 figs., PAULIAN & BERNARDI Nat. malgache **3.**—*E.* group *elathea-palmira* seasonal forms Cuba pp. 7–8, ALAYO Bol. Hist. nat. Soc. " Felipe Poey " **2.**

Gonepteryx amintha **subsp. n.** *limonia* p. 116 ; *rhamni* **f. n.** *bivoltina* p. 119 S. China figs., MELL Zoologica,

Stuttgart **36** 1943 Heft 100.—*G. rhamni* colour ab. p. 77, CARUEL Bull. Union Soc. franç. Hist. nat. no. 7.

Leptidea lactea **sp. n.** N. China (with **f. gen. vern.** *praelactea* p. 62) ; *morsei* **ab. n.** *primorsei* Japan p. 67, **ff. n.** *ommani* N.W. China p. 68, *batangi* (with **f. gen. vern.** *praebatangi*) p. 69 Tibet ; *m. morseides* **f. gen. aest.** *neomorsei* Vladivostok p. 67 ; *sinapis morsei* **ab. n.** *yuasai* p. 70 ; *japona* **ab. n.** *praejapona* p. 72 ; *s.* ab. *deserticola* **f. n.** *predeserta* Lebanon p. 74 figs., LORKOVIĆ Glasn. Hrv. priridosl. Društvo, Zagreb (2B) **2–3** 1950.—*L. morsei major* distribution Czechoslovakia pp. 184–185 figs., MOUCHA Acta Soc. ent. Čsl. **48.**

Metaporia largeteaui **subspp. n.** *pacifica, schmackeri* S. China p. 88 figs., MELL Zoologica, Stuttgart **36** 1943 Heft 100.

Nathalis iole **f. n.** *alayoi* Cuba p. 89 figs., DE LA TORRE Y CALLEJAS Mem. Soc. cubana Hist. nat. **20.**

Phoebis sennae eubule discussion of Mexican forms pp. 417–429 figs., VÁZQUEZ G. An. Inst. Biol., Mexico **21.**

Pieris manni, ergane, rapae distinguishing characters p. 60 figs., BERNARDI Rev. franç. Lép. **13.**—*P.* (*Artogeia*) *ergane* **r. n.** *lucieni* p. 29 (with **f. n.** *postlucieni* p. 30) France figs., DUJARDIN Bull. Soc. ent. Mulhouse **1951.**—*P. napi* variation of Scandinavian forms p. 109, PETERSEN Trans. S. Lond. ent. nat. Hist. Soc. **1950–51.**—*P. napi* mod. *hibernica* Schm. correct spelling (not *hybernica*) p. 154, KAUTZ Z. wien. ent. Ges. **35** 1950.—*P. napi* **f. n.** *headi* Austria p. 108, NESCHNER Ent. NachrBl. öst. schweiz. Ent. **3.**—*P. napi* **ab. n.** *citronella* England p. 177, THOMPSON Entomologist **84.**—*P. canidia* L. type locality S. China (=*glyciria* Cram.) p. 71, TOXOPEUS Idea **8.**—*P.* (*Synchloë*) *canidia* **ff. n.** *nerissoides, reducta, pallida* ; *rapae* **subsp. n.** *yunnana* S. China p. 104 figs., MELL Zoologica, Stuttgart **36** 1943 Heft 100.

Pontia daplidice **ab. n.** *infragrisea* England p. 30, GOODSON Entomologist **84.**

Prioneris thestylis **subsp. n.** *yunnana* Yunnan p. 97 figs., MELL Zoologica, Stuttgart **35** 1943 Heft 100.

Terias (*Maiva*) *libythea* **subsp. n.** *yunnana* p. 126 ; (*Nirmula*) *hiemalis* **f. n.** *pales* p. 127 S. China figs., MELL t.c.—*T. riojana* see *Eurema.*

PAPILIONIDAE (BARONIIDAE, PARNASSIDAE, TEINOPALPIDAE).

Papilionidae of Moçambique, BACELAR An. Junta Invest. colon. Lisboa (Zool.) **5** 1950 pp. 106–109.

Papilionids of W. Kenya, STONEHAM Stoneham Mus. Publ. 24 pp.

Papilio revision of African spp. of group *nireus* pp. 44–52 ; *sosia* **ff. n.** *imitatrix* p. 45, *pristina* p. 46 Fr. Congo ; *aethiops* **f. n.** *microps* Abyssinia p. 52, STORACE Lambillionea **51.**—*P.* keys to and notes on American spp. pp. 63–67, BROWN Lep. News **4.**—*P. ajax* L. proposal to Int. Comm. zool. Nomen. pp. 27–29, CORBET Bull. zool. Nomen. **2**; HEMMING pp. 29–30, Dos PASSOS pp. 349–350 ; HERING p. 350 ; FIELD op. cit. **6** pp. 105–106.—*P. rex* **f. n.** *endymion* p. 5 ; *dardanus* **ff. n.** *akechia, melanoleuca, neria* p. 8, *millari, babingtonia* p. 9, *neocenea, akechiana* p. 10, *neriana, harmonia, ariadne, conjunctiflava* p. 12 ; *phorcas* **f. n.** *polyxena* p. 14; *lormieri* **ff. n.** *ophidicephaloides, rufopunctata* p. 18 ; *jacksoni* **f. n.** *multimaculata* p. 19 ; *cynorta* **ff. n.** *agayana, bwambensis* p. 20 Kenya ; *zoroastres homeyeri* Plotz (=f. *neumanni* Karsch) p. 19, STONEHAM Stoneham Mus. Publ.—*P. sarpedon* L. discussion of type locality pp. 54–62 ; *s.* **subsp. n.** *lycianus* Java p. 62 ; *s.* subsp. *corbeti* **n. n.** for subsp. *melas* Fruhst. nec Hbst. (with **f. n.** *gemmatus* Sikkim) p. 63 ; *ascanius* L. type locality discussed pp. 64–65 ; *neascanius* **n. n.** for *ascanius* Cram. nec L.; *polydorus* L. discussed p. 67 figs., TOXOPEUS Idea **8.**

Parnassius apollo (with **subsp. n.** *australis* France p. 51) groups and forms discussed pp. 5–7, 14–15, 24–26, 34–35, 39–43, 49–52, 56–60, 64–67, 71–75, 81–84, FISCHER Bull. Soc. ent. Mulhouse **1951.**—*P. mnemosyne* **subsp. n.** *atlanticus* Norway p. 4

figs., Opheim Univ. Bergen Årbok Naturv. Rekke **1948** 1949 no. 5.— *P. phoebus cervinicolus* **f. n.** *intermedioides* Adelboden p. 81 figs., Storace Boll. Soc. ent. ital. **81.**

Tadumia tenedius **subsp. n.** *kleinschmidti* Transbaikalia p. 70; *t. t.* **f. n.** *cordiformis* Lake Baikal; *t. vulcanus* **f. n.** *rubrocordiformis* Altai p. 71 figs., Bryk Syllegomena biol. (Festschr. 80. Geburts. O. Kleinschmidt) 1950.

Thais rumina **subsp. n.** *minima* Spain p. 103 figs., Gerhardinger Ent. NachrBl. öst. schweiz. Ent. **3.**— *T. rumina medesicaste* **f. n.** *daluisensis* Var p. 132, Loritz Bull. Ann. Soc. ent. Belg. **87.**

Hesperiidae.

Hesperiids of Marshall Is., Clark Proc. ent. Soc. Wash. **53** pp. 43–44.

Catalogue of American Hesperiidae in Brit. Mus. (Nat. Hist.), pt. 1 Pyrrhopyginae, Evans x & 92 pp. 9 pls.

Revisional notes on African Hesperiidae, Evans Ann. Mag. nat. Hist. (12) **4** pp. 1268–1272, 4 figs.

Hesperioidea of Texas, Freeman Sth. Methodist Univ. Stud. no. 6, 67 pp.

Hesperiinae of Argentina, Hayward Gen. Sp. Anim. Argent. **2** 1950 388 pp. 26 pls. (12 col.).

Argentine Hesperiids, XXI, Hayward Rev. Soc. ent. argent. **15** pp. 53–56, 1 fig.

Hesperiids of Switzerland, Kauffmann Mitt. schweiz. ent. Ges. **24** pp. 329–376.

Abantis leucogaster **subsp. n.** *iruma* Belg. Congo p. 1270, Evans Ann. Mag. nat. Hist. (12) **4.**

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Amenis pionia **subsp. n.** *picia* Colombia p. 61, Evans Cat. Amer. Hesp. . . Brit. Mus. pt. 1.

Ardaris eximia **subsp. n.** *hantra* Venezuela p. 61, Evans t.c.

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Astictopterus tura **sp. n.** Tanganyika p. 1271, Evans Ann. Mag. nat. Hist. (12) **4.**

Atrytone conspicua **subsp. n.** *buchholzi* Nebraska p. 188, Ehrlich & Gillham Ent. News **62.**

Borbo holtzii Plötz (=*Pelopidas rougeoti* Picard) p. 1272, Evans Ann. Mag. nat. Hist. (12) **4.**

Calleagris jamesoni **subspp. n.** *jacksoni* Tanganyika, *neavei* Port E. Africa, *ansorgei* Angola p. 1268, Evans t.c.

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Cobalus aethus **sp. n.** Bolivia p. 469 fig., Hayward t.c.

Eagris nottoana Wall. (=*Nisoniades flavipalpis* Plötz) p. 1268, Evans Ann. Mag. nat. Hist. (12) **4.**

Elbella **gen. n.** for *Pyrrhopyge scylla* Men. (type), *Jemadia theseus* Bell, *Mimoniades iphinous* Latr., *P. intersecta* H.-S. (with **subspp. n.** *strova* Venezuela, *peter* Pará, *ilona*, *chia* Brazil p. 40) and others pp. 4, 38; *losca* Brazil, Colombia, Bolivia p. 41, *etna* Amazons (with **subsp. n.** *moda* Peru) p. 46, *zesta* Fr. Guiana p. 48 **spp. n.**; *patrobas* **subsp. n.** *blanda* Amazons etc. p. 44; *azeta* **subsp. n.** *lustra* Bogotá; *umbrata* **subsp. n.** *acala* Colombia p. 45 figs., Evans Cat. Amer. Hesp. . . Brit. Mus. pt. 1.

Eretis djaelaelae Wall., *mixta* Evans distinct spp.; *nox* Neave, *maculifera* Mab. & Boull. subspp. of *umbra* Trim. p. 1269, Evans Ann. Mag. nat. Hist. (12) **4.**

Fulda coroller Boisd. (=*Hesperia antalcidas* Feld.) p. 1271, Evans t.c.

Gomalia elma Trim. (=*Tavetana jeanneli* Picard) p. 1271, Evans t.c.

Gorgyra subflavidus Holl. (=*pan* Evans) p. 1272, Evans t.c.

Hegesippe **gen. n.** for *Sarbia hegesippe* M. & B. (type), *S. luteizona* Mab. pp. 5, 62, Evans Cat. Amer. Hesp. . . Brit. Mus. pt. 1.

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Metardaris cosinga **subspp. n.** *catana* Peru, Bolivia, *circe*, *cedra* Peru p. 66, EVANS Cat. Amer. Hesp. . . . Brit. Mus. pt. 1.

Metisella orientalis Aur. (=*Pamphila abeli* Krug.) p. 1271, EVANS Ann. Mag. nat. Hist. (12) **4.**

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Mysoria barcastus **subspp. n.** *alta* Trinidad, Br. Guiana, *antila* Amazons p. 68, *barta* Paraguay etc. p. 69, EVANS t.c.

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Ochlodes venatum nicaeense **f. n.** *pseudonicaeense* Switzerland p. 373, KAUFFMANN Mitt. schweiz. ent. Ges. **24.**

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Pardaleodes tibullus F. (=*reichenowi* Plötz) p. 1272, EVANS Ann. Mag. nat. Hist. (12) **4.**

Passova **gen. n.** for *Pyrrhopyge passova* Hew. (type) (with **subspp. n.** *rudex* Peru, Amazons p. 82, *practa* Paraná, *stacer* Br. Guiana p. 83) & others pp. 6, 79; *ganymedes* **subspp. n.** *gulia* Ecuador, *gelina* Peru; *glacia* Fr. Guiana p. 80, *greta* Peru, *vilna* (with **subsp. n.** *vanta*) Bolivia p. 81 **spp. n.**, EVANS Cat. Amer. Hesp. . . . Brit. Mus. pt. 1.

Pellicia hermione Hayw. valid sp. not syn. of *alicus* Schaus p. 55, HAYWARD Rev. Soc. ent. argent. **15.**

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Polites inconspicua **sp. n.** Bolivia p. 465 fig., HAYWARD Acta zool. lilloana **9** [preprint 1950].

Pyrgus centaureae **ab. n.** *lineolata* p. 178 (with **ab. n.** *reducta* p. 180) Lapland fig., KAUFFMANN Ent. Z. **59** 1950.—*P. malvoides* bred p. 33, early stages p. 34 fig., KAUFFMANN Ent. Z. **60** 1950.—*P.* (*Scelothrix*) *cacaliae prosensis* **ff. n.** *substriata*, *aladini* p. 343; (*S.*) *andromedae* **f. n.** *nigrans* p. 344; (*P.*) *malvae* **subsp. n.** *luciarius* p. 345; (*Ateleomorpha*) *serratulae caecus* **f. n.** *favettae* p. 351; (*A.*) *carlinae* **subsp. n.** *ochroides* p. 352; *c. atratus* **ff. n.** *subclarescens*, *pulverulenta*, *quadratilla*; (*A.*) *cirsii* **subsp. n.** *tramelanensis* p. 354; (*A.*) *alveus* **subsp. n.** *prabornius* p. 357; *a. warrenensis* **ff. n.** *andromedeformis*, *radiiformis*, *pulverulenta* p. 359; (*A.*) *armoricanus cacaoticus* **f. n.** *circellata* p. 361 Switzerland, KAUFFMANN Mitt. schweiz. ent. Ges. **24.**—*P. fritillum* **subsp. n.** *turcivola* Turkey p. 326 fig., DE LATTIN Rev. Fac. Sci. Univ. Istanbul **15B** 1950.—*P. centaureae*, *freija* genitalia pp. 217–220 figs., WARREN Entomologist **84.**

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Microlepidoptera of S. Dalmatia, Amsel Redia **36** pp. 411–422, 2 figs.

New additions to Maltese Lepidoptera, De Lucca Entomologist **84** pp. 258–259.

Microlepidoptera of the nature reserve park, Lüneburg Heath, Germany, Jäckh Abh. naturw. Ver. Bremen **31** 1941 pp. 786–806, 4 figs.

Additions to list of Microlepidoptera from Traunstein, Austria, Klimesch Z. wien. ent. Ges. **36** pp. 101–117, 27 figs.

Some Microlepidoptera from the Elbe region, Bohemia, Komárek Acta Soc. ent. Čsl. **48** pp. 86–89.

Catalogue of Netherlands Macrolepidoptera, Lempke Tijdschr. Ent. **94** pp. 227–320, 5 figs.

Microlepidoptera of S. Bavaria, Osthelder Beilage Mitt. münchn. ent. Ges. **29** 1939 pp. 1–112, 2 pls.; **41** pp. 113–250, 3 figs.

List of described immature stages of Indian Heterocera, Pant & Chatterjee Indian For. Rec. (N.S.) Ent. **7** pp. 267–333.

Heterocera collected in Sumatra, Roepke Mitt. schweiz. ent. Ges. **24** pp. 377–400, 11 figs.

Some Microlepidoptera of Lippe area, Germany, Schultz Natur u. Heimat **9** 1949 Heft 3 pp. 1–13, 2 figs.

Additions to list of Maltese Heterocera, Valletta Entomologist **84** pp. 64–66, 255–257.

Supplement to catalogue of Heterocera of Fr. Oceania, Viette Bull. Soc. ent. Fr. **56** pp. 14–16.

Meyrick's Tineid types in Paris Museum, Viette Bull. Soc. ent. Fr. **56** pp. 81–90.

Some Madagascan Heterocera, Viette Mém. Inst. sci. Madagascar **5A** pp. 131–138, 9 figs.

Tineid types of Constant, Viette Rev. franç. Lép. **12** pp. 337–341.

Microlepidoptera of C. Dumont, Viette Rev. franç. Lép. **13** pp. 56–59, 4 figs.

Heterocera of Iceland, Wärnecke Flora og Fauna **57** pp. 41–44.

Microlepidoptera of Würtemberg, Wörz Jh. Ver. vaterl. Naturk. Württemb. **106** pp. 125–144.

Syntomidae (Amatidae, Ctenuchidae, Euchromiidae).

Amata polydamon all stages p. **96**, figs., Taylor J. ent. Soc. sthn Afr. **14.**

Syntomis phegea **subsp. n.** *orientalis* Macedonia p. 21 figs., DANIEL in DANIEL, FORSTER & OSTHELDER Veröff. zool. Staatssamml. München **2.**

ARCTIIDAE (including HYPSIDAE and PERICOPIDAE).

Lithosiinae of China, DANIEL Bonn. zool. Beitr. **2** pp. 291–327, 1 pl. 24 figs.

Relation of tympanal organs of Lithosiidae to classification, KIRIAKOFF Biol. Jaarb. **18** pp. 53–76, 7 figs.

Relation of tympanal organs of Nyctemeridae to classification, KIRIAKOFF Bull. Ann. Soc. ent. Belg. **87** pp. 106–129.

Tympanal organs of Arctiids, KIRIAKOFF Lambillionea **50** pp. 62–73, 4 figs.

Contribution to the knowledge of the Arctiids, XXIII–XXVI, TRAVASSOS Rev. brasil. Biol. **11** 43–47, 11 figs., 181–187, 17 figs., 249–253, 10 figs., pp. 393–398, 19 figs.

New classification of some French Arctiids, VIETTE Bull. Soc. ent. Fr. **56** pp. 97–98.

Arctia hebe bred p. 124, ALBERTI Ent. Z. **61.**

Arctiarpia **gen. n.** for *Idalus melanopasta* Dogn. p. 249 figs., TRAVASSOS Rev. brasil. Biol. **11.**

Asota caricae **subsp. n.** *melanesiensis* New Hebrides, New Caledonia p. 15, VIETTE Bull. Soc. ent. Fr. **56.**

Asuridia yuennanica **sp. n.** N. Yunnan p. 307 figs., DANIEL Bonn. zool. Beitr. **2.**

Asuridoides **gen. n.**, *atuntseica* (type) N. Yunnan, *osthelderi* W. China **spp. n.** p. 308 figs., DANIEL t.c.

Callimorpha dominula **subsp. n.** *balcanica* Macedonia p. 26 figs., DANIEL in DANIEL, FORSTER & OSTHELDER Veröff. zool. Staatssamml. München **2.**—*C. dominula* **ab. n.** *plebeia* England p. 14, WILLIAMS Ent. Rec. **63.**

Celama harouni **sp. n.** Iraq p. 653 figs., WILTSHIRE J. Bombay nat. Hist. Soc. **49.**—*C. parvitis* early stages p. 70 figs., HUDSON Fragm. N.Z. Ent. [1951].

Coscinia cribraria **ab. n.** *delimbata* ? England p. 266 fig., COCKAYNE Ent. Rec. **63.**

Cybosia mesomella **ab. n.** *postpallida* England p. 262, COCKAYNE t.c.

Cycnia mendica **abb. n.** *lineata, substriata, circumpunctata, nigrociliata* p. 263, *albinotata* p. 264 England figs., COCKAYNE t.c.

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Endrosa spp. of Graubünden pp. 413–437, *irrorella* **ff. n.** *maculata, nigrostriata*, p. 417 ; *kuhlweini* **subsp. n.** *subalpina* p. 418 (with **f. n.** *pallida* p. 419) ; *roscida melanomos* **ff. n.** *pallida, tristis, pseudoramosa* p. 421 ; *aurita sagittata* **f. n.** *arteriaeformis* ; *a.* **subspp. n.** *modesta* (with **f. n.** *intermedia* p. 425) p. 424, *tecticola* p. 427 (with **f. n.** *sulphurea* p. 429) Switzerland figs., THOMANN Mitt. schweiz. ent. Ges. **24.**

Evius characters p. 181 ; *hippia* redescription p. 182 figs., TRAVASSOS Rev. brasil. Biol. **11.**

Hipocrita jacobaeae **abb. n.** *expallescens, albescens* England p. 263, COCKAYNE Ent. Rec. **63.**

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Metacrias erichrysa early stages p. 69 figs., HUDSON Fragm. N.Z. Ent. [1951].

Miltochrista tibeta Tibet p. 311, *tsinglingensis* S. Shensi p. 314, *kuatunensis* Fukien p. 315, *gilva* N. Yunnan, Tibet p. 316, *longaria* Chekiang, Hunan etc. p. 318, *variata* p. 319, *atuntseensis* p. 320 N. Yunnan, (*Barsina*) *orientalis* Chekiang, Fukien, etc. p. 324 **spp. n.**; *pallida* **subspp. n.** *tapaishanica* S. Shensi, *formosana* Formosa p. 313 figs., DANIEL Bonn. zool. Beitr. **2.**

Moenas chneouri **sp. n.** Tunisia p. 99 fig., Rungs Bull. Soc. ent. Fr. **56.**

Paramulona revision (key p. 491) pp. 489–496; *baracoa, schwarzi* **spp. n.** Cuba p. 494 figs., Field Proc. U.S. nat. Mus. **101** no. 3286.

Parasemia plantaginis **abb. n.** *nigricosta* Wales, *atrescens* Scotland p. 262 figs., Cockayne Ent. Rec. **63.**—*P. plantaginis* **f. n.** *thomanni* Switzerland p. 412, Kessler Mitt. schweiz. ent. Ges. **24.**

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Pericallia pratti **sp. n.** Madagascar p. 600 fig., Kenrick Trans. ent. Soc. Lond. **1913** 1914.

Phryganopteryx rectangulata **sp. n.** Madagascar p. 600 fig., Kenrick t.c.

Pseudomacroptila **gen. n.**, *argentea* **sp. n.** Venezuela p. 183 fig., Fleming Zoologica, N.Y. **36.**

Purius characters p. 43; *pilumina* redescribed p. 44 figs., Travassos Rev. brasil. Biol. **11.**

Rhodogastriinae **subfam. n.** p. 71, Kiriakoff Lambillionea **50.**

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Utetheisa lotrix larva p. 100 fig., Howarth Trans. S. Lond. ent. nat. Hist. Soc. **1949-50.**

Xanthoarctia **gen. n.** for *Idalus pseudameoides* Rothschild p. 393 figs., Travassos Rev. brasil. Biol. **11.**

Agrotidae (Phalaenidae, Noctuidae)

(including Agaristidae).

Benidae considered correct name for Hylophilidae, Obraztsov Ent. Z. **60** 1950 p. 72.

Generic revision of N. American Hadeninae, Franclemont Proc. ent. Soc. Wash. **53** pp. 57–85, 41 figs.

Noctuinae of New Caledonia and New Hebrides (key to genn. p. 30), Viette Ann. Soc. ent. Fr. **118** pp. 29–50, 38 figs.

Some Noctuids described by Guenée, 1852–54, Viette Bull. Soc. linn. Lyon **20** pp. 159–162.

Keys to Chinese genera of Noctuidae, Woo & Yang Ann. ent. sinici **1** pp. 348–377, 49 figs. [in Chinese].

Acontia luctuosa **ab. n.** *reducta* England p. 164, Cockayne Ent. Rec. **63.**

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Apatele cercsi **sp. n.** Korea p. 104 figs., HOWARTH Trans. S. Lond. ent. nat. Hist. Soc. **1949-50.**

Araeognatha sichotensis **sp. n.** Maritime Prov. p. 244, KURENTZOV Ent. Obozr. **31** 1950.

Arenostola pygmina **ab. n.** *lutea* England p. 161, COCKAYNE Ent. Rec. **63.**

Athyrma simplex **sp. n.** Sumatra p. 387 fig., ROEPKE Mitt. schweiz. ent. Ges. **24.**

Austramathes purpurea early stages p. 72 figs., HUDSON Fragm. N.Z. Ent. [1951].

Bena fagana abb. pp. 64, 71–72; *f.* **abb. n.** *flavociliata* Ukraine, *rubrociliata* Germany p. 72, OBRAZTSOV Ent. Z. **60** 1950.—*B. fagana* subsp. *britannica* **abb. n.** *leucozona, anargyria* England, *trilinea* locality unknown p. 161, COCKAYNE Ent. Rec. **63.**

Borisia **gen. n.** p. 246, *hiemalis* **sp. n.** E. Turkmenistan p. 247, FILIP'EV Ent. Obozr. **30** 1949.

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Faronta Sm. (=*Protoleucania* McD.) p. 62, Franclemont Proc. ent. Soc. Wash. **53.**

Gelastocera sutshana **sp. n.** S. Ussuri p. 61; *kotshubeji* ♂ p. 62, Obraztsov Ent. Z. **60** 1950.

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Relation of tympanal organs of Cocytiids to classification, KIRIAKOFF Ent. Ber., Amst. **13** pp. 381–382.

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Entomologist **84.**—*E. variegata, aureoplaga, miniata, canariensis* p. 598, *castaneo-striata, griseo-striata* p. 599 **spp. n.** Madagascar, KENRICK Trans. ent. Soc. Lond. **1913** 1914.—*E. irregularis* see *Parakanchia.*

Gynaephora sincera **sp. n.** Pamirs p. 248 fig., KOZHANCHIKOV Fn SSSR, Ins.-Lep. **12** 1950.

Imaida see *Psilochira.*

Imaus malgassica **sp. n.** Madagascar p. 599 fig., KENRICK Trans. ent. Soc. Lond. **1913** 1914.

Kanchia dinawa **subsp. n.** *tafa* Papua; *opalina* Burma, Assam p. 1028, *stibiessa* New Ireland p. 1029 **spp. n.** figs., COLLENETTE Ann. Mag. nat. Hist. (12) **4.**

Leucoma sericea **subsp. n.** *tafa* Papua p. 1026 fig., COLLENETTE t.c.

Lymantria minora van Eecke, *panthera* van E. distinct spp. p. 1035; *m.* (=*pendleburyi* Cllt.); *kanara* **sp. n.** S. India p. 1035 figs., COLLENETTE t.c.—*L. monacha* **abb. n.** *nigrilinea, cucullina* England p. 242 fig., COCKAYNE Entomologist **84.**—*L. nigrostriata, parvula* **spp. n.** Madagascar p. 597 fig., KENRICK Trans. ent. Soc. Lond. **1913** 1914.—*L. salomonensis* see *Dasychira.*

Malachitis melanochlora Hmps. a subsp. of *preangerensis* Heyl. p. 1039 fig., COLLENETTE Ann. Mag. nat. Hist. (12) **4.**

Mardara yunnana **sp. n.** Yunnan p. 1039 fig., COLLENETTE t.c.

Ocneropsis **gen. n.**, *relictus* **sp. n.** Centr. Asia p. 377 fig., KOZHANCHIKOV Fn SSSR, Ins.-Lep. **12** 1950.

Olapa flabellaria early stages p. 104 figs., TAYLOR J. ent. Soc. sthn Afr. **14.**

Orgyia tricolor early stages p. 105 fig., TAYLOR t.c.—*O. malgassica* **sp. n.** Madagascar p. 597 fig., KENRICK Trans. ent. Soc. Lond. **1913** 1914.

Parakanchia irregularis B.-B. (from *Euproctis*) (=*grisea* B.-B.) p. 1033; *cyclops* **sp. n.** New Guinea p. 1034 fig., COLLENETTE Ann. Mag. nat. Hist. (12) **4.**

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Porthesia aethiopica early stages p. 105 fig., TAYLOR J. ent. Soc. sthn Afr. **14.**

Psilochira Tox. (=*Imaida* Tox.), key to spp. p. 1037, COLLENETTE Ann. Mag. nat. Hist. (12) **4.**

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Sitvia eleuterioides see *Etobema.*

NOTODONTIDAE (including THAUMETOPOEIDAE).

Allata Wlk. discussed p. 379, ROEPKE Mitt. schweiz. ent. Ges. **24.**

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Drymonia dodonaea **ab. n.** *purpurascens* England p. 31 fig., COCKAYNE t.c.

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Thaumetopoea processionea **subsp. n.** *pseudosolitaria* Macedonia, Sicily, etc.; *solitaria, processionea* distinguishing characters p. 27 figs., DANIEL in DANIEL, FORSTER & OSTHELDER Veröff. zool. Staatssamml. München **2.**

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Acidaliinae from Tokyo, IMAIDZUMI Tenthredo **3** 1941 pp. 295–297, 1 fig.

Sterrhinae of Tokyo neighbourhood, IMAIDZUMI Tenthredo **3** 1942 pp. 359–363.

Macrolepidoptera of French Expedition 1949 to Greenland, DE LESSE Ann. Soc. ent. Fr. **118** pp. 51–77, 38 figs.

Geometrids of Belgium, SARLET Fn. Belg., Géom. à femelles aptères 1948 150 pp. 25 pls.

Abraxas grossulariata **abb. n.** *venusta* p. 102, *sebaria, formosa* p. 103, *leucomelaina, aureopicta* p. 105, *postfimbriata, nigralbata, latilimbata* p. 106 England, *ovalidisca, melanoneura, radioreversa* p. 104, *nigropalliata, sexstrigata* p. 105 localities unknown figs., COCKAYNE Ent. Rec. **63.**—*A. grossulariata* **ab. n.** *aureomarginata* England p. 128 figs., COCKAYNE Entomologist **84.**—*A.* (*A.*) *grossulariata* **ff. n.** *lutescens* p. 262, *luteovenata, paucisignata* p. 263, *magnipuncta, continua* p. 266, *mediofasciata* p. 267, *diluta* p. 269; (*Calospilos*) *sylvata* **ff. n.** *rufomaculata, fasciata* p. 271 Netherlands, LEMPKE Tijdschr. Ent. **94.**

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Anagoga pulveraria **ff. n.** *grisescens, rufescens, linearia* p. 307, *approximata* p. 308 Netherlands, LEMPKE Tijdschr. Ent. **94.**

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Bapta temerata **ff. n.** *obscura, tangens* Netherlands p. 279, LEMPKE Tijdschr. Ent. **94.**

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Catarhoe **gen. n.** for *Cidaria basochesiata* Dup. p. 25, HERBULOT Rev. franç. Lép. **13.**

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Chelegnophos **subgen. n.** (type *ravistriolaria* Whli.) see *Gnophos.*

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Cidaria spadicearia, ferrugata distinguishing characters p. 24 figs., BEURET Ver.-Nachr. Ent.-Ver. Basel **6** 1949.—*C. varonaria* **var. n.** *cinereata* Bavaria p. 122, HÖRHAMMER Ent. Z. **61.**—*C. djakonovi* **sp. n.** Maritime Prov. p. 244, KURENTZOV Ent. Obozr. **31** 1950.—*C. variata* **subsp. n.** *balcanicola* Turkey p. 59 fig., DE LATTIN Rev. Fac. Sci. Univ. Istanbul **16B.**—*C. basochesiata* see *Catarhoe.*

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Cosymbia porata **f. n.** *flava* Saxony p. 22, BRETSCHNEIDER Z. wien. ent. Ges. **36.**

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Dysgnophos **subgen. n.** (type *difficilis* Alph.) see *Gnophos.*

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Dysrhoe **gen. n.** for *Ortholitha rhiogyra* Prout p. 25, HERBULOT Rev. franç. Lép. **13.**

Ecodonia **gen. n.** for *Gnophos* (*Hydrelia*) *tchrinaria* Oberth. (type), *G. ephyrinodes* Whli., *G. ephyrinaria* O., *G. minutaria* Leech pp. 9, 35, WEHRLI Lambillionea **51.**

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Epirrhanthis (*Xyridacma*) *veronicae* larva p. 90 fig., HUDSON Fragm. N.Z. Ent. [1951].

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Gargaphia muriferata larva p. 95 figs., HUDSON Fragm. N.Z. Ent. [1951].

Geometra berberata see *Pareulype* ; *polygrammata* see *Grammorhoe*.

Glaucorhoe **gen. n.** for *Cabera unduliferaria* Mots. p. 26, HERBULOT Rev. franç. Lép. **13.**

Gnopharmia (*Neognopharmia* **subgen. n.**) *stevenaria* Bsd. from *Gnophos* p. 8, WEHRLI Lambillionea **51.**

Gnophopsodos **gen. n.** for *Gnophos gnophosaria* Oberth. p. 9 ; *altissimaria* Oberth. from *Psodos* p. **34,** WEHRLI t.c.

Gnophos new classification pp.6–11, 22–30, 34–37, characters p. 7, (*Dicrognophos* p. 10, *Lycognophos, Kemtrognophos, Sacrognophos* p. 11, *Rhinognophos* p. 22, *Costignophos, Trilobignophos, Dysgnophos* p. 23, *Neognophina, Rhopalognophos, Organognophos* p. 24, *Euchrognophos, Pterygnophos* p. 25, *Rhipignophos, Cnestrognophos* p. 26, *Chelegnophos* **subgenn. n.**), WERHLI t.c.—*G. dumetata, zacharis* see *Odontognophos* ; *tchrinaria, ephyrinodes, ephyrinaria, minutaria* see *Ecodonia* ; *dolosaria, poggearia* see *Rhoptria* ; *tibiaria, benesignata* see *Pachycnemia* ; *ventraria, methoria, tetarte* see *Ctenognophos* ; *stevenaria* see *Gnopharmia* ; *gnophosaria* see *Gnophopsodos*.

Gonodontis bidentata **ff. n.** *fusca, pallida, fuscomarginata, approximata* p. 300, *clausa* p. 301 Netherlands, LEMPKE Tijdschr. Ent. **94.**

Grammorhoe **gen. n.** for *Geometra polygrammata* Borkh. p. 63, HERBULOT Rev. franç. Lép. **13.**

Gymnoscelis pumilata **ff. n.** *contrastata, albescens, puncta* Netherlands p. 256, LEMPKE Tijdschr. Ent. **94.**

Hibernia defoliaria **ab. n.** *invariabilis* Iceland p. 43, WARNECKE Flora og Fauna **57.**

Hirasa (**subgen. n.** *Hirasichlora* p. 8), WEHRLI Lambillionea **51.**

Hirasichlora **subgen. n.** see *Hirasa*.

Hydrelia tchrinaria see *Ecodonia*.

Hydriomena venustatis p. 85, *paucita* characters ; *praerupta* valid sp. p. 86 figs., HUDSON Fragm. N.Z. Ent. [1951].—*H. frigidata* p. 2, *pluviata* p. 8 characters, identity figs., MCDUNNOUGH Amer. Mus. Novit. no. 1535.—*H. neomexicana* see *Archirhoe*.

Itame philadelphiaria **sp. n.** Maritime Prov. p. 245, KURENTZOV Ent. Obozr. **31** 1950.

Kemtrognophos **subgen. n.** (type *onustaria* H.-S.) see *Gnophos*.

Larentia scripturata subsp. *dolomitana* **ff. n.** *divisa, fasciata* Tyrol p. 61 figs., BURMANN Z. wien. ent. Ges. **36**. —*L. alhambrata* see *Antilurga*.

Ligdia adustata **f. n.** *obscura* Netherlands p. 276, LEMPKE Tijdschr. Ent. **94**.

Lomaspilis marginata **ff. n.** *postalbata* p. 274, *brunnescens, lacticolor* p. 275 Netherlands, LEMPKE t.c.

Lozogramma chlorosata **ff. n.** *fuscata, unilinea* Netherlands p. 315, LEMPKE t.c.

Lycognophos **subgen. n.** (type *obscurata* Schiff.) see *Gnophos*.

Melanippe unicata see *Protorhoe*.

Metriocera **subgen. n.** (type *sinuosaria* Leech) see *Pterotocera*.

Neognopharmia **subgen. n.** (type *stevenaria* Bsd.) see *Gnopharmia*.

Neognophina **subgen. n.** (type *intermedia* Whli.) see *Gnophos*.

Odontognophos (as *Odontignophos* p. 8) **gen. n.** for *Gnophos dumetata* Tr. (type), *zacharia* Stgr. p. 29, WEHRLI Lambillionea **51**.

Omphalucha maturnaria early stages p. 111 figs., TAYLOR J. ent. Soc. sthn Afr. **14**.

Operophtera groenlandica **sp. n.** W. Greenland p. 57 figs., DE LESSE Ann. Soc. ent. Fr. **118**.

Opisthograptis luteolata **ff. n.** *delineata* p. 309, *ruficosta, tangens* p. 310 Netherlands, LEMPKE Tijdschr. Ent. **94**.

Organognophos **subgen. n.** (type *sibiriata* Gn.) see *Gnophos*.

Orthoclydon praefectata larva p. 87 fig., HUDSON Fragm. N.Z. Ent. [1951].

Ortholitha rhiogyra see *Dysrhoe*.

Ourapteryx sambucaria **ff. n.** *destrigata, delineata, pallida* Netherlands p. 283, LEMPKE Tijdschr. Ent. **94**.

Pachycnemia tibiaria Rmb., *benesignata* Bell. from *Gnophos* p. 8, WEHRLI Lambillionea **51**.—*P. hippocastanaria* **f. n.** *nigrescens* Netherlands p. 314, LEMPKE Tijdschr. Ent. **94**.

Pareulype **gen. n.** for *Geometra berberata* D. & S. p. 62, HERBULOT Rev. franç. Lép. **13**.

Plagodis dolabraria **ff. n.** *rufescens, aurantiaca* Netherlands p. 308, LEMPKE Tijdschr. Ent. **94**.

Poecilopsis of Bohemia pp. 1–5; *isabellae* **abb. n.** *griseola* Bohemia p. 2, *albosquamulosa* Poland p. 3, BRŮČKOVÁ Acta ent. Mus. nat. Pragae **26** 1949 no. 365.

Protorhoe **gen. n.** for *Melanippe unicata* Gn. p. 62, HERBULOT Rev. franç. Lép. **13**.

Pseudopanthera macularia **f. n.** *nigrescens* Netherlands p. 316, LEMPKE Tijdschr. Ent. **94**.

Pseudoterpna pruinata **f. n.** *aurata* Saxony p. 21, BRETSCHNEIDER Z. wien. ent. Ges. **36**.

Psodos altissimaria see *Gnophopsodos*.

Pterotocera revision pp. 370–380; *ussurica* **sp. n.** Maritime Prov. p. 375, (*Metriocera* **subgen. n.**) *armeniacae* Ferghana p. 377 **sp. n.** figs., D'YAKONOV Ent. Obozr. **30** 1949.

Pterygnophos **subgen. n.** (type *ochrofasciata* Stgr.) see *Gnophos*.

Rhinognophos **subgen. n.** (type *similaria* Roths.) see *Gnophos*.

Rhipignophos **subgen. n.** (type *pervicinaria* Whli.) see *Gnophos*.

Rhopalognophos **subgen. n.** (type *glaucinaria* Hb.) see *Gnophos*.

Rhoptria dolosaria H.-S., *poggearia* Led. from *Gnophos* p. 8, WEHRLI Lambillionea **51**.

Sacrognophos **subgen. n.** (type *sacraria* Stgr.) see *Gnophos*.

Salpis clarkei **sp. n.** Chile p. 162, SPERRY Bull. S. Calif. Acad. Sci. **50**.

Scopula lactata **subsp. n.** *scotica* Scotland p. 154, COCKAYNE Entomologist **84**.—*S.* (*S.*) *apicipunctata* **ab. n.** *alba* Japan p. 361, IMAIDZUMI Tenthredo **3** 1942.

Selenia bilunaria **ff. n.** *grisescens, obscura, glabra, rufescens, centrilineata* p. 295; *lunaria* **ff. n.** *roseofasciata, brunnea, maculosa, nigrumbata, deumbrata*; *tetralunaria* **ff. n.**

obscura p. 297, *clara*, *rufescens*, *nigrolineata* p. 298 Netherlands, LEMPKE Tijdschr. Ent. **94.**

Selidosema berylia p. 90, *pergrata* (larva p. 91), *cineracia* p. 92 characters; *ampla* **var. n.** *bistonaria* New Zealand p. 93 figs., HUDSON Fragm. N.Z. Ent. [1951].

Snowia waltonaria Sperry from *Azelina* p. 54, SPERRY Bull. S. Calif. Acad. Sci. **50.**

Spargania randallae **sp. n.** Chile p. 161, SPERRY t.c.

Sterrha impexa **f. n.** *usumona* Tokyo p. 362, IMAIDZUMI Tenthredo **3** 1942.

Subdischidesia **subgen. n.** see *Dischidesia.*

Thalera fimbrialis **f. n.** *fasciata* Germany p. 164, HARTWIEG Z. Lepid. **1.**

Trilobignophos **subgen. n.** (type *pollinaria* Christ.) see *Gnophos.*

Xanthorhoe semisignata early stages p. 88 figs., HUDSON Fragm. N.Z. Ent. [1951].

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Tetheidae **n. n.** for Cymatophoridae, with list of included genn. with types, PACLT Ent. Ber., Amst. **13** pp. 219–220.

Achlya flavicornis **ab. n.** *atrescens* Scotland p. 31 fig., COCKAYNE Ent. Rec. **63.**

Asphalia diluta **abb. n.** *omicron*, *fuscofasciata*, *angulata* England p. 30 figs., COCKAYNE t.c.

Polyploca ridens **ab. n.** *unicolor* England p. 31 fig., COCKAYNE t.c.

Tethea ocularis **ab. n.** *microphthalma*; *fluctuosa* **ab. n.** *albilinea* England p. 30 figs., COCKAYNE t.c.

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Epiplema schneideri **sp. n.** Sumatra p. 383 figs., ROEPKE Mitt. schweiz. ent. Ges. **24.**

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Keys to larvae and pupae of Pyralids (contd.), GERASIMOV Ent. Obozr. **30** 1949 pp. 365–369.

Ancylolomia griseella **sp. n.** Morocco p. 175 figs., AMSEL Bull. Soc. Sci. nat. Maroc **30.**—*A. micropalpella*, *benderella* **spp. n.** Iran p. 526 figs., AMSEL Ark. Zool. (2) **1** no. 36.

Ancylosis arimanella p. 528, *sefidella* p. 529, *albicostella* p. 530 **spp. n.**; *cinnamomella* **subsp. n.** *persicolella* p. 529 Iran figs., AMSEL t.c.

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Aproceratia senganella **sp. n.** Iran p. 530 figs., AMSEL Ark. Zool. (2) **1** no. 36.

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Ardekania **gen. n.**, *farsella* **sp. n.** Iran p. 527 figs., AMSEL t.c.

Belutchistania **gen. n.** p. 539, *squamalis* **sp. n.** Iran p. 540 figs., AMSEL t.c.

Bostra pseudospaniella p. 545, *comealis* p. 546 **spp. n.** Iran figs., AMSEL t.c.

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Chilo tadzhikiellus **sp. n.** Tadzhikistan p. 704 figs., GERASIMOV Trud. zool. Inst. Akad. Nauk SSSR **8** 1949. —*C. zonellus*, *simplex* distinct spp., larval chaetotaxy pp. 79–85 figs., TREHAN & BUTANI Indian J. agric. Sci. **20.**

Constantia (*Macroctenia*) *baloutchistanalis* **sp. n.** Iran p. 548 figs., AMSEL Ark. Zool. (2) **1** no. 36.

Crambus variation of male genitalia of *desertellus* & *geniculeus* group pp. 159–163; *dalmatinellus* Hmps. reduced to subsp. of *geniculeus* Hw.; *klimeschi* Toll, *stachiellus* Toll reduced to forms of *craterellus* Sc. p. 162, AMSEL Z. Lepid. **1.**—*C. luctiferellus* f. *albidellus* Kr. transferred to *acutangulellus* p. 140; *luctiferellus* (with **ff. n.** *reductellus* p. 150, *griseellus* p. 153, *atrellus* p. 154), *luctuellus* (with **ff. n.** *lineellus* p. 150, *fumellus* p. 154 N. Tyrol) distinct spp., morphology and variation of Tyrolean forms pp. 137–157

figs., BURMANN Mitt. münchn. ent. Ges. **41.**—*C. punctellus, fugitivellus* **spp. n.** New Zealand p. 99 figs., HUDSON Fragm. N.Z. Ent. [1951].—*C. osthelderi* **sp. n.** Germany p. 73 fig., DE LATTIN Ent. Z. **60** 1950.—*C. myellus* Hb. (with **subsp. n.** *mellinellus* Alps p. 97), *permutatellus* H.S. (with **subsp. n.** *kaisilai* Finland p. 98, **f. n.** *vulpinellus* Germany p. 99), *osthelderi* Latt. distinguishing characters p. 89 etc., synonymy & distribution p. 96 figs., DE LATTIN Z. wien. ent. Ges. **36.**—*C. acutangulellus* **subsp. n.** *macedonicus* Macedonia p. 56, OSTHELDER in DANIEL, FORSTER & OSTHELDER Veröff. zool. Staatssamml. München **2.**

Crocidolomia binotalis early stages p. 121 figs., TAYLOR J. ent. Soc. sthn Afr. **14.**

Cybalomia triplacogramma ♂ p. 545 figs., AMSEL Ark. Zool. (2) **1** no. 36.

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Endotricha flammealis **subsp. n.** *carnealis* Turkey p. 66 fig., DE LATTIN Rev. Fac. Sci. Univ. Istanbul **16B.**

Ephestia xylobrunnea **sp. n.** Iran p. 527 figs., AMSEL Ark. Zool. (2) **1** no. 36.

Evergestis affinis, paragrummi **spp. n.** Iran p. 550 figs., AMSEL t.c.—*E. extimalis* all stages p. 351 figs., ZOCCHI Boll. Ist. Ent. Bologna **18.**—*E. unimacula* G. & R. from *Pyrausta* p. 163 fig., MUNROE Canad. Ent. **83.**

Framinghamia helvalis Wlk. from *Phlyctaenia* p. 161 figs., MUNROE t.c.

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Laristania **gen. n.**, *sardzella* **sp. n.** Iran p. 536 figs., AMSEL t.c.

Loxostege mira **sp. n.** Iran p. 550 figs., AMSEL t.c.—*L. ephippialis* Zett. from *Titanio* p. 165 fig., MUNROE Canad. Ent. **83.**

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Mechedia **gen. n.**, *pristophorella* **sp. n.** Iran p. 531 figs., AMSEL Ark. Zool. (2) **1** no. 36.

Mecyna lutealis Dup. & f. *citralis* H.-S. validity discussed pp. 10–15 figs., MARION Rev. franç. Lép. **13.**—*M. gilvata* early stages p. 123 figs., TAYLOR J. ent. Soc. sthn Afr. **14.**

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Nymphula curviferalis Wlk. valid sp. not synonym of *badiusalis* Wlk. p. 20 figs., MUNROE t.c.—*N. stagnata* see *Paraponyx.*

Orocrambus pervius a var. of *catacaustus* p. 98, HUDSON Fragm. N.Z. Ent. [1951].

Paraemporia **gen. n.**, *monotona* **sp. n.** Iran p. 544 figs., AMSEL Ark. Zool. (2) **1** no. 36.

Paraponyx stagnata Don. from *Nymphula* ; (*Pseudoparaponyx* **subgen. n.**) p. 108 figs., PATOČKA Ent. Listy **13.**

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Pristophora velocella ♂ p. 531 figs., AMSEL Ark. Zool. (2) **1** no. 36.—*P. oxycyma* see *Taftania.*

Protaulacistis swezeyi **sp. n.** Hawaii p. 337 figs., ZIMMERMAN Proc. Hawaii. ent. Soc. **14.**

Pseudoparaponyx **subgen. n.** (type *stagnata* Don.) see *Paraponyx.*

Pyrausta dapalis Gr. from *Titanio* ; *socialis* Gr. valid, not synonym of *fodinalis* Hmps. p. 165 ; *perrubralis* **subsp. n.** *saanichalis* Canada p. 166 ; *glomeralis* Wlk. a race of *funebris* p. 168 figs., MUNROE Canad. Ent. **83.** —*P. lutulentalis* Led. (=*consequens* Meyr.) p. 553 figs., AMSEL Ark. Zool. (2) **1** no. 36.—*P. unimacula* see *Evergestis.*

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Sclerobiodes **gen. n.**, *persica* **sp. n.** Iran p. 535 figs., AMSEL t.c.

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Synoria comeella **sp. n.** Iran p. 533 figs., AMSEL t.c.

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Tegostoma uniforma **sp. n.** Iran ; *moeschleri* Chr. from *Anthophilopsis* p. 554 figs., AMSEL t.c.

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Oxyptilus revision of group (list of genn. & spp. p. 308) pp. 301–388 figs., ADAMCZEWSKI t.c.—*O. kollari* early stages p. 146 fig., BURMANN Z. wien. ent. Ges. **35** 1950.—*O. linariae, anatolicus, pelecyntes* see *Procapperia*; *ningoris, fuscus, loranus, geodactylus* see *Capperia* ; *zanclistes* see *Sphenarches*.

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Hemeroplanes modesta **sp. n.** Brazil p. 69, GEHLEN Ent. Z. **60** 1950.

Oligographa juniperi early stages p. 106 fig., TAYLOR J. ent. Soc. sthn Afr. **14.**

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Coenobasis amoena early stages p. 114 fig., Taylor J. ent. Soc. sthn Afr. **14.**

Pseudolimacodes **gen. n.**, *brunnea* **sp. n.** Madagascar p. 136 figs., Viette Mém. Inst. sci. Madagascar **5A.**

Psychidae.

Eriopteryx **gen. n.**, *funebris* **sp. n.** Madagascar p. 590 fig., Kenrick Trans. ent. Soc. Lond. **1913** 1914.

Lansdownia discussed p. XLI, *Oiketicus fuscescens* Snell. designated type; *walkeriana* **n. n.** for *boisduvalii* Wlk. nec Westw. p. XLIII, Betrem Tijdschr. Ent. **94.**

Oiketicus zihuatanejensis **sp. n.** Mexico p. 323 figs., Vázquez G. An. Inst. Biol., Mexico **22.**

Psychidea bombycella (further description p. 35) revision of Centr. European ff. pp. 33–44; *b.* **subspp. n.** *collina* p. 37, *altimontana*, *silvicolella* p. 41 Austria figs., Sieder & Loebel Z. wien. ent. Ges. **36.**

Arrhenophanidae.

Genitalia of Arrhenophanidae, Bradley Entomologist **84** pp. 178–181.

Arrhenophanes perspicilla Stoll (= *inca* Meyr.) p. 185, Bradley t.c.—*A. chiquita* see *Ecpathophanes.*

Cnissostages mastictor **sp. n.** Costa Rica, Peru, Ecuador p. 185 figs., Bradley t.c.

Ecpathophanes **gen. n.** p. 181, *anachoreta* **sp. n.** (type) Colombia; *chiquita* Busck from *Arrhenophanes* p. 184 figs., Bradley t.c.

Cossidae.

Genera of Cossidae and their types, Viette Lambillionea **51** pp. 38–43.

List of Cossidae of Madagascar, with new synonymy, Viette Nat. malgache **3** pp. 133–138, 1 pl. 1 fig.

Allocryptobia **n. n.** for *Cryptobia* H.-S. nec Leidy (Prot.) p. 38, Viette Lambillionea **51.**

Azygophleps castaneus Kenr. (= *hova* Le C.) from *Duomitus* p. 134 fig., Viette Nat. malgache **3.**

Chrysotypus cupreus **sp. n.** Madagascar p. 589, Kenrick Trans. ent. Soc. Lond. **1913** 1914.—Transferred to Thyrididae, q.v.

Cossus parvulus, *crucis* **spp. n.** Madagascar p. 588, Kenrick Trans. ent. Soc. Lond. **1913** 1914.—*C. crucis* Kenr. (=*cirrilator* Le C.) p. 134; *breviculus* Mab. (=*crassilineatus* Gaede) p. 135 figs., Viette Nat. malgache **3.**

Cryptobia see *Allocryptobia.*

Duomitus occultoides, *castaneus*, *combustus* **spp. n.** Madagascar p. 589, Kenrick Trans. ent. Soc. Lond. **1913** 1914.—*D. castaneus* see *Azygophleps*; *combustus* see *Phragmataecia.*

Phragmataecia combustus Kenr. (=*argillosa* Le C.) from *Duomitus* p. 136; *grandis* **sp. n.** Madagascar p. 137 figs., Viette Nat. malgache **3.**

Pseudocossus **gen. n.**, *uliginosus* **sp. n.** Madagascar p. 590, Kenrick Trans. ent. Soc. Lond. **1913** 1914.

Pseudocossus Gaede nec Kenr. see *Zyganisus.*

Xylocossus cretaceus Btl. (=*malgacicus* Houlb.) p. 136 fig., Viette Nat. malgache **3.**

Zyganisus **n. n.** for *Pseudocossus* Gaede nec Kenr. p. 134 (note), Viette t.c.

Phaloniidae.

Clysiana reliquatrix Meyr. (=*opisthodonta* Diak.); *tenggerensis* **sp. n.** Java p. 133, Diakonoff Bijdr. Dierk. **28** 1949.

Idiographis zophocosma see *Cryptaspasma lugubris* (Olethreutidae).

Phalonia atricapitana pupa p. 9 figs., SCHULTZ Natur u. Heimat **9** 1949 Heft 3.—*P. obraztsovi* **sp. n.** S. Dalmatia p. 411 figs., AMSEL Redia **36.**

TORTRICIDAE
(including CERACIDAE).

Acalla shepherdana pupa p. 6, SCHULTZ Natur u. Heimat **9** 1949 Heft 3.

Astrosa **gen. n.** p. 135, *leucosema* **sp. n.** Java p. 136 figs., DIAKONOFF Treubia **21.**

Cacoecia unifasciana early stages p. 99, GRABE Z. Lepid. **1.**

Cnephasia (*C.*) *orthoxyana* p. 224 (with **ff. n.** *reducta, styx, confluentana* p. 225), (*Hypostephanuncia*) *ecullyana* p. 228, (*Ablabia*) *rielana* p. 230 **spp. n.** France figs., RÉAL Bull. mens. Soc. linn. Lyon **20.**—*C. jactatana* larva p. 105, HUDSON Fragm. N.Z. Ent. [1951].

Epagoge mellosa **sp. n.** Java p. 133 figs., DIAKONOFF Treubia **21.**

Leontochroma Wals. (=*Rhapsodica* Meyr. (from Xyloryctidae)) p. 135, DIAKONOFF Bijdr. Dierk. **28** 1949.

Schoenotenes bathyglypha **sp. n.** Java p. 144, DIAKONOFF Treubia **21.**

Spatalistis hilarochroma **sp. n.** Java p. 141 figs., DIAKONOFF t.c.

Taeniarchis argyroiota **sp. n.** Java p. 138 figs., DIAKONOFF t.c.

Terthreutis Meyr. (=*Amniodes* Meyr. (from Xyloryctidae)); *sphaerocosma* Meyr. (=*duosticta* Wil. & Str.) p. 134, DIAKONOFF Bijdr. Dierk. **28** 1949.

Tortrix paleana **subspp. n.** *fumatana* Stuttgart, *pseudoviburniana* Carniola p. 45, *carpathica* Carpathians, *fischeri* France, *raebeli* Silesia p. 48 figs., TOLL Bull. Soc. ent. Mulhouse **1951.**—*T. nubilana* all stages p. 191 figs., POVOLNÝ Ent. Listy **14.**—*T. dumetana* pupa p. 6, SCHULTZ Natur u. Heimat **9** 1949 Heft 3.

Zacorisca taminia Feld. (=*stephanitis* Meyr.) p. 133, DIAKONOFF Bijdr. Dierk. **28** 1949.

OLETHREUTIDAE (EUCOSMIDAE).

Anchylopera plumbata **sp. n.** Argentina p. 296 figs., CLARKE J. Wash. Acad. Sci. **41.**

Argyroploce discana Feld. (=*peltastica* Meyr., *Eucosma leucaspis* M., *Platypeplus rhynchias* M.) p. 135; *semiculta* M. (=*heteraspis* M.); *harmonica* M. (=*philocompsa* M.); *strepsibathra* M. (=*tetraploca* M.); *confertana* Wlk. (=*onychosema* M.); *herbifera* M. (=*hygrargyra* M.); *albitibiana* Snell. (=*conchifera* M.) p. 136, DIAKONOFF Bijdr. Dierk. **28** 1949.

Aterpia Gn. (=*Esia* Heinr.) p. 276; synonymical list of Holarctic spp. p. 277, OBRAZTSOV Ent. News **62.**

Cirriphora **gen. n.** for *Grapholitha pharaonana* Koll. p. 99 figs., OBRAZTSOV Tijdschr. Ent. **93.**

Corticivora **gen. n.**, *clarki* **sp. n.** Connecticut p. 46 figs., CLARKE J. Wash. Acad. Sci. **41.**

Crobylophora see *Kenneliola.*

Cryptaspasma lugubris Feld. (=*Eucosma brachyptycha* Meyr., *Idiographis zophocosma* M. (from Phaloniidae)) p. 135, DIAKONOFF Bijdr. Dierk. **28** 1949.

Cryptophlebia carpophagoides **sp. n.** Argentina p. 299 figs., CLARKE J. Wash. Acad. Sci. **41.**

Dichrorampha minorana **sp. n.** S. Bavaria p. 108 figs., OSTHELDER Beilage Mitt. münchn. ent. Ges. **29** 1939.

Enarmonia novarana Feld. a valid sp. p. 137; *pseudonectis* Meyr. (=*Laspeyresia ptychora* Meyr.); *delectana* Snell. (=*L. haemograpta* Meyr.) a valid sp. and not syn. of *koenigana* F.; *hemicosma* Low. (=*L. exemplaris* M.) p. 138, DIAKONOFF Bijdr. Dierk. **28** 1949.

Epiblema tedella all stages p. 10 figs., SCHEDL K. E. & C. Der Fichtennestwickler.—*E. nigricana* early stages p. 77 figs., PATOČKA Acta Soc. zool. bohemoslov. **14** 1950.

Episimus unguiculus **sp. n.** Argentina p. 297 figs., CLARKE J. Wash. Acad. Sci. **41.**

Esia see *Aterpia.*

Eucelis ochreocervina see *Eucosma falcana.*

Eucosma falcana Wals. (=*Eucelis ochreocervina* Wals. p. 136, *Eucosma trophiodes* Meyr., *E. melanaula* M.) p. 137, DIAKONOFF Bijdr. Dierk. **28**

1949.—*E. brachyptycha* see *Cryptaspasma lugubris* ; *leucaspis* see *Argyroploce discana*.

Eucosmomorpha **gen. n.** for *Semasia rheediana* Hw. p. 99, Obraztsov Tijdschr. Ent. **93.**

Exartema Aesculus-feeding spp. compared pp. 353–357 ; *appalachianum* **sp. n.** U.S.A. p. 354 figs., Braun Ohio J. Sci. **51.**

Grapholitha pharaonana see *Cirriphora*.

Kenneliola **n. n.** for *Crobylophora* Kennel nec Meyr. p. 127, Paclt Rev. franç. Lépidopt. **13.**

Laspeyresia araucariae **sp. n.** Argentina p. 243 figs., Pastrana Rev. Invest. agric., B. Aires **4.**—*L. ptychora* see *Enarmonia pseudonectis* ; *haemograpta* see *E. delectana* ; *exemplaris* see *E. hemicosma*.

Notocelia rosaecolana larva p. 10, Schultz Natur u. Heimat **9** 1949 Heft 3.

Pammene (*Hemerosia*) *obscurana* Steph., *ravulana* H.-S., *tomiana* synonymy discussed pp. 321–326 figs., Obraztsov Tijdschr. Ent. **94.**

Platypeplus rhynchias see *Argyroploce discana*.

Procoronis swinhoeana Wals. (= *rhothias* Meyr.) p. 137, Diakonoff Bijdr. Dierk. **28** 1949.

Semasia rheediana see *Eucosmomorpha*.

Carposinidae.

Carposina adreptella, gonosemana larvae p. 109 figs., Hudson Fragm. N.Z. Ent. [1951].

Lavernidae (Momphidae).

Coccidiphila **gen. n.** p. 48, *gerasimovi* **sp. n.** (type) Caucasus, Black Sea Coast p. 49 ; *ledereriella* Zell. from *Batrachedra* (from Cosmopterygidae) p. 53 figs., Danilevskiĭ Ent. Obozr. **31** 1950.

Mompha comparison of European spp. pp. 173–178 ; *nodicolella* Fuchs (=*permutatella* H.-S., *Ornix sturnipennella* Tr.) p. 175 ; *divisella* redescription p. 176 ; *subdivisella* **sp. n.** England p. 177 figs., Bradley Ent. Gaz. **2.**

Ornix sturnipennella see *Mompha nodicolella*.

Cosmopterygidae (including Diplosaridae).

Batrachedra ledereriella see *Coccidiphila* (Lavernidae).

Labdia fletcherella **sp. n.** India p. 510 figs., Bradley Ann. Mag. nat. Hist. (12) **4.**

Gelechiidae.

Gelechiids of S. Africa, Janse Moths S. Afr. **5** pt. 3 pp. 173–300, pls. 89–136.

Acutitornus **gen. n.** p. 234, *munda* **sp. n.** S. Africa p. 235 figs., Janse Moths S. Afr. **5.**

Anapatetris **gen. n.** for *Epiphthora crystallista* Meyr. p. 233 figs., Janse t.c.

Anastomopteryx **gen. n.** p. 269, *angulata* **sp. n.** S. Africa p. 270 figs., Janse t.c.

Apatetris and allied genn. p. 227, Janse t.c.—*A. collecta* see *Radionerva* ; *leucogaea* see *Curvisignella* ; *undina* see *Macrocalcara*.

Aristotelia perplexa, parephoria **spp. n.** Argentina p. 140 figs., Clarke J. Wash. Acad. Sci. **41.**

Cerofrontia **gen. n.**, *griseotincta* **sp. n.** S. Africa p. 230 figs., Janse Moths S. Afr. **5.**

Commatica compsotoma see *Excommatica*.

Curvisignella **gen. n.** for *Apatetris leucogaea* Meyr. p. 231 figs., Janse Moths S. Afr. **5.**

Dichomeris acuta, aulotoma (*interamna*), *ithyaula, orthacma* see *Holaxyra* ; *chlorophracta* see *Epicharta*.

Epicharta chlorophracta Meyr. (= *gnomonodes* Meyr.) from *Dichomeris* p. 195 figs., Janse Moths S. Afr. **5.**

Epiphthora cirrhaea see *Filisignella* ; *crystallista* see *Anapatetris*.

Excommatica **gen. n.** for *Commatica compsotoma* Meyr. p. 267 figs., Janse Moths S. Afr. **5.**

Filisignella **gen. n.** for *Epiphthora cirrhaea* Meyr. p. 232 figs., Janse t.c.

Gelechia danieli **sp. n.** S. Bavaria p. 137, OSTHELDER Beilage Mitt. münchn. ent. Ges. **41.**—*G. trisignis, catharodes, epicentra, isochorda, matutina, mesacta, naufraga, ochnias, ophitis, peronectus, polygramma, prioleuca, rhodochra, sarcographa, stasiarcha, triplacopis,* see *Schizovalva.*

Grandipalpa **gen. n.** p. 235, *robusta* **sp. n.** S.W. Africa p. 236 figs., JANSE Moths S. Afr. **5.**

Holaxyra latipalpis Wlshm. (= *Machlotricha caeca* Meyr.) p. 187; *reducta* **sp. n.** Natal p. 189; *acuta* Meyr. p. 190, *aulotoma* M. (= *Dichomeris interamna* M.) p. 191, *ithyaula* M. p. 192, *orthacma* M. p. 193 from *Dichomeris* figs., JANSE t.c.

Leuronoma credula, eremopis see *Stomopteryx.*

Machlotricha caeca see *Holaxyra latipalpis.*

Macrocalcara **gen. n.** for *Apatetris undina* Meyr. p. 237 figs., JANSE Moths S. Afr. **5.**

Megacraspedus calamogona larva p. 106, HUDSON Fragm. N.Z. Ent. [1951].

Metzneria carlinella all stages p. 207 figs., MELLINI Boll. Ist. Ent. Bologna **18.**—*M. xanthorhabda* **sp. n.** Hungary p. 20 fig., GOZMÁNY Folia ent. hungar. (N.S.) **4.**

Octonodula **gen. n.** for *Stomopteryx inumbrata* Meyr. (type) p. 263; *binotella* **sp. n.** S.W. Africa p. 265 figs., JANSE Moths S. Afr. **5.**

Parapsectris anxia see *Stomopteryx.*

Parastega hemisigna **sp. n.** Argentina p. 140 figs., CLARKE J. Wash. Acad. Sci. **41.**

Phthorimaea diffluella **var. n.** *bellidiastri* Austria p. 105; *alpicolella, acuminatella* characters p. 110 figs., KLIMESCH Z. wien. ent. Ges. **36.**—*P. operculella* morphology p. 302, early stages p. 319 figs., BARTOLONI Redia **36.**—*P. perinii* **sp. n.** Italy p. 31 fig., KLIMESCH Studi Trentini Sci. nat. **27** 1950.—*P. ocellatella* larva p. 98, imago p. 100 figs., POVOLNÝ & ZAKOPAL Ent. Listy **14.**—*P. heliopa* & Meyrick's S. African spp. see *Scrobipalpa.*

Platyphalla **gen. n.** p. 299, *ochrinotata* **sp. n.** Pretoria p. 300 figs., JANSE Moths S. Afr. **5.**

Radionerva **gen. n.** for *Apatetris collecta* Meyr. p. 228, JANSE t.c.

Rotundivalva **gen. n.** p. 238, *blanda* **sp. n.** S. Africa p. 239 figs., JANSE t.c.

Schizovalva **gen. n.** for *Gelechia trisignis* Meyr. (type) p. 270, *Stomopteryx alaopis* M. p. 274, *Gelechia catharodes* M. p. 276, *G. epicentra* M. p. 277, *S. exsulata* M. p. 278, *S. hyperythra* M. p. 279, *G. isochorda* M. p. 280, *G. matutina* M. p. 282, *G. mesacta* M., *G. naufraga* M. p. 283, *G. ochnias* M. p. 285, *G. ophitis* M. p. 287, *G. peronectus* M. p. 289, *G. polygramma* p. 290, *G. prioleuca* M., *G. rhodochra* M. p. 291, *G. sarcographa* M. p. 294, *G. stasiarcha* M., *G. triplacopis* M. p. 295, *G. trisignis* M. p. 296; *bistrigata* p. 274, *brunneotincta* p. 275, *leucogrisea* p. 281, *nigrifasciata* p. 284, *ochrotincta* p. 286, *perirrorata* p. 288, *rubigitincta* p. 292, *xerochroa* p. 297, *xylotincta* p. 298 **spp. n.** S. Africa figs., JANSE t.c.

Schützeia africanella **sp. n.** Natal p. 267 figs., JANSE t.c.

Scrobipalpa **gen. n.** for *Phthorimaea heliopa* Low. (type) & Meyrick's S. African spp. placed in *P.* p. 199, key p. 201; *turgida* **sp. n.** S. Africa p. 218 figs., JANSE t.c.

Sophronia ascalis **sp. n.** Hungary p. 17 fig., GOZMÁNY Folia ent. hungar. (N.S.) **4.**

Stomopteryx key to spp. p. 241; *anxia* Meyr. from *Parapsectris* p. 242; *credula* Meyr. p. 246, *eremopis* Meyr. p. 249 from *Leuronoma*; *difficilis* p. 247, *officiosa* p. 250, *pallidipes* p. 252 **spp. n.** S. Africa figs., JANSE Moths S. Afr. **5.**—*S. oxyspila* see *Syncopacma*; *inumbrata* see *Octonodula*; *alaopis, exsulata, hyperythra* see *Schizovalva.*

Symmoca signella variation pp. 181–184 (with **ff. n.** *flavella, nigrella, albidella* p. 182, *obsoletella, confluella* p. 183 Tyrol), BURMANN Z. Lepid. **1.**

Syncopacma consimilis p. 258, *monochromella* p. 260, *perfuscata* p. 263 **spp. n.** S. Africa; *faceta* Meyr. a valid sp. and not syn. of *Stomopteryx polychromella* Rbl. p. 259; *oxyspila*

Meyr. (=*acrophylla* Meyr.) from *Stomopteryx* p. 262 figs., Janse Moths S. Afr. **5.**

Oecophoridae.

British Oecophoridae, II, Jacobs Trans. S. Lond. ent. nat. Hist. Soc. **1949–50** pp. 187–203, 1 col. pl.

Barea exarcha larva p. 108 fig., Hudson Fragm. N.Z. Ent. [1951].

Borkhausenia innotella **var. n.** *ombrodella* New Zealand p. 107 fig., Hudson t.c.

Endrosis lactella early stages pp. 749–753 figs., Woodroffe Bull. ent. Res. **41.**

Gymnobathra rufopunctella **sp. n.** New Zealand p. 107 fig., Hudson Fragm. N.Z. Ent. [1951].

Hofmannophila pseudospretella all stages pp. 530–543 figs., Woodroffe Bull. ent. Res. **41.**

Izatha metadelta larva p. 108 fig., Hudson Fragm. N.Z. Ent. [1951].

Martyrhilda gozmányi **sp. n.** Hungary p. 25 figs., Balogh Folia ent. hungar. (N.S.) **4.**

Pseudodoxia characters p. 84, key to Javanese spp.; *pulla* p. 85, *modica* p. 88 **spp. n.** Java; *siriopa*, *xanthocephala* further descriptions p. 91 figs., Diakonoff Idea **8.**

Xyloryctidae (Cryptophasidae).

Amniodes see *Terthreutis* (Tortricidae).

Rhapsodica see *Leontochroma* (Tortricidae).

Ethmiidae.

Ethmia rhomboidella, *sabiella* early stages p. 125 figs., Taylor J. ent. Soc. sthn Afr. **14.**

Glyphipterygidae
(including Atychidae).

Anthophila dichlora Meyr. (=*Simaethis pilara* Meyr.) p. 139, Diakonoff Bijdr. Dierk. **28** 1949.

Brenthia leptocosma early stages p. 629 figs., Williams Bull. ent. Res. **41.**

Imma mormopa Meyr. (=*Simaethis nubicincta* Meyr.) p. 138, Diakonoff Bijdr. Dierk. **28** 1949.

Irianassa speciosana Pag. (=*alcyonopa* Meyr.) p. 138, Diakonoff t.c.

Simaethis nubicincta see *Imma mormopa*; *pilara* see *Anthophila dichlora*.

Tortyra divitiosa Wlk. (=*prodigella* Wlk.); *pretiosa* Wlk. (=*berylliis* Meyr.) p. 139, Diakonoff Bijdr. Dierk. **28** 1949.

Hyponomeutidae
(including Plutellidae).

Characters of British Plutellidae, Ford Trans. S. Lond. ent. nat. Hist. Soc. **1949–50** pp. 85–93, 1 col. pl.

Agriothera cristata **sp. n.** Java p. 146 fig., Diakonoff Treubia **21.**

Cedestis gysselinella see *Eucedestis*.

Eucedestis **gen. n.** for *Cedestis gysselinella* Dup. p. 127, Paclt Rev. franç. Lépidopt. **13.**

Plutella megalynta characters p. 111 fig., Hudson Fragm. N.Z. Ent. [1951].

Scythridae.

Bryophaga aben-humeya **sp. n.** p. 266; *acanthella* **subsp. n.** *seeboldiella* p. 271 Spain; *delicatella*, *desidella* valid spp. p. 272 figs., Agenjo Eos **27.**

Scythris igaloensis **sp. n.** S. Dalmatia p. 419 figs., Amsel Redia **36.**—*S. disparella*, *senescens* distinct spp. p. 191 figs., Benander Opusc. ent., Lund **16.**

Elachistidae.

Elachista dalmatinella p. 412, *igaloensis* p. 414 **spp. n.** S. Dalmatia figs., Amsel Redia **36.**

Mendesia farinella characters p. 302 figs., Bradley Microscope **7** 1950.

Heliodinidae
(Schreckensteiniidae).

Phosphaticola **gen. n.** p. 58, *gemmatella* **sp. n.** Tunisia p. 59 figs., Viette Rev. franç. Lép. **13.**

Stathmopoda clarkei **sp. n.** Madagascar p. 134 figs., Viette Mém. Inst. sci. Madagascar **5A.**—*S. phlegyra* larva p. 110 fig., Hudson Fragm. N.Z. Ent. [1951].

COLEOPHORIDAE.

Eupista (*Coleophora*) *edithae* **sp. n.** Hungary p. 69; *predotella* ♀, larval case p. 71 figs., GOZMÁNY Folia ent. hungar. (N.S.) **4.**

AEGERIIDAE (SESIIDAE).

Chamaesphecia atramentaria **sp. n.** Peru p. 22, ZUKOWSKY Ent. Z. **60** 1950.

Gaea erasmia **sp. n.** Chile p. 23, ZUKOWSKY t.c.

LYONETIIDAE.

Bucculatrix demaryella **var. n.** *castaneae* Italy p. 52 fig., KLIMESCH Studi Trentini Sci. nat. **27** 1950.—*B. fatigatella* Heyd. identity discussed p. 138; *clavenae* **sp. n.** Austria p. 139; *f.* larva p. 143, larval chaetotaxy p. 144 figs., KLIMESCH Z. wien. ent. Ges. **35** 1950.

Erechthias terminella larva p. 112 fig., HUDSON Fragm. N.Z. Ent. [1951].

Wegneria **gen. n.** p. 131, *cavernicola* **sp. n.** E. Java (cave in Tengger Mts.) p. 134 figs., DIAKONOFF Zool. Meded. **31.**

GRACILLARIIDAE.

Lithocolletis spp. mining *Alnus* and *Acer* pp. 129–144, keys p. 141 figs., GREGOR & POVOLNÝ Ent. Listy **13.**—*L. cavella* **subsp. n.** *milleri* Bohemia p. 35 figs., POVOLNÝ & GREGOR t.c.—*L. dalmatinella* **sp. n.** S. Dalmatia p. 415 figs., AMSEL Redia **36.**—*L. lemarchandi* **sp. n.** Madagascar p. 131 figs., VIETTE Mém. Inst. sci. Madagascar **5A.**

Parectopa eugeniella **sp. n.** Madagascar p. 132 figs., VIETTE t.c.

TINEIDAE
(including ACROLOPHIDAE).

Novotinea liguriella **sp. n.** Italy p. 27 figs., AMSEL Boll. Ass. romana Ent. **5.**

Tinea maroccanella Morocco p. 177, *libanotica* Lebanon, *melitensis* Malta p. 178 **spp. n.**; *latiusculella*, *gardesanella*, *chrysopterella* further descriptions p. 179 figs., AMSEL Bull. Soc. Sci. nat. Maroc **30.**—*T. pustulatella* **subsp. n.** *igaloensis* S. Dalmatia p. 416 figs., AMSEL Redia **36.**—*T. submontana* **sp. n.** S. Bavaria p. 241 fig., OSTHELDER Beilage Mitt. münchn. ent. Ges. **41.**—*T. monteliella* **sp. n.** Finland p. 18 figs., v. SCHANTZ Notul. ent. **31.**

INCURVARIIDAE (including
ADELIDAE and CRINOPTERYGIDAE).

Incurvaria key to spp. & groups p. 54, VIETTE Entomologiste **7.**

Lampronia aereipennella adult p. 79, larva p. 80 figs., KLIMESCH Studi Trentini Sci. nat. **27** 1950.

Nemophora revision of Malayan spp. pp. 147–181, key p. 152; *divina* p. 154, *kalshoveni* p. 160, *chalcobasa* p. 162, *rhodochrysa* p. 166, *micrometalla* p. 167, *chrysodonta* p. 168, *lieftincki* p. 170, *hemidesma* p. 171, *heteroxantha* p. 177 Java, *chalcodactyla* Moluccas p. 163, *plutodotis* Celebes p. 165, *liongi* Borneo p. 174 **spp. n.**; *bifasciella* **subsp. n.** *irrorata* Java p. 179; *aurisparsella* Wlk. p. 156, *tristrigella* W. p. 158, *decisella* W. p. 173 redescriptions figs., DIAKONOFF Treubia **21.**

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Nepticula spinosissimae p. 4, *zermattensis* p. 6, *dorycniella* p. 7 ♂ genitalia; (*Levarchama*) *ortneri* **sp. n.** Austria p. 66 figs., KLIMESCH Z. wien. ent. Ges. **36.**—*N. zangherii* **sp. n.** Italy p. 61 figs., KLIMESCH Boll. Soc. ent. ital. **81.**

ERIOCRANIIDAE.

Corrected nomenclature in Eriocraniids, VIETTE Rev. franç. Lép. **13** pp. 43–44.

Eriocrania chrysolepidella Zell. (= *Micropteryx kaltenbachii* Wood) p. 9, BRADLEY Entomologist **84.**

HEPIALIDAE.

Contribution to the study of the Hepialidae (25e note), VIETTE Ann. Mag. nat. Hist. (12) **4** pp. 1272–1282, 5 figs.

Genera of Hepialidae and their types, VIETTE Lambillionea **50** pp. 73–80; correction in **52** 1952 p. 30.

Aepytus scope; *exclamans* H.-S. from *Dalaca*; (subgen. *Pseudodalaca* type *gugelmanni* Vtt. not *serba* Sch.)

p. 95, VIETTE Bull. mens. Soc. linn. Lyon **20**.—*A. epigramma* see *Schaefferiana*.

Dalaca (*Hampsoniella* scope) *assa*, *serba* ♂ genitalia figured, VIETTE Bull. mens. Soc. linn. Lyon **20**.—*D. exclamans* see *Aepytus*; *prytanes* see *Lamelliformia*.

Eudalaca sanctahelena **sp. n.** St. Helena p. 1281 fig., VIETTE Ann. Mag. nat. Hist. (12) **4**.

Hepialyxodes **gen. n.** p. 1278, *rileyi* **sp. n.** Brazil p. 1279 fig., VIETTE t.c.

Lamelliformia **gen. n.** for *Dalaca prytanes* Schaus p. 1274, VIETTE t.c.

Porina leonina characters p. 114; *fusca* Philp. (=*descendens* Hudson) p. 115 figs., HUDSON Fragm. N.Z. Ent. [1951].

Puermytrans **gen. n.** p. 1273, *chiliensis* **sp. n.** Chile p. 1274 fig., VIETTE Ann. Mag. nat. Hist. (12) **4**.

Schaefferiana epigramma H.-S.from *Aepytus* p. 95, VIETTE Bull. mens. Soc. linn. Lyon **20**.

Thiastyx **gen. n.** p. 1275, *catharinae* **sp. n.** Brazil p. 1276 fig., VIETTE Ann. Mag. nat. Hist. (12) **4**.

Yleuxas **gen. n.**, *bradleyi* **sp. n.** Peru p. 1280 fig., VIETTE t.c.

MICROPTERYGIDAE.

Micropteryx larvae pp. 142–150 figs., MARTUINOVA Ent. Obozr. **31** 1950.—*M. igaloensis* **sp. n.** S. Dalmatia p. 417 figs., AMSEL Redia **36**.—*M. kaltenbachii* see *Eriocrania chrysolepidella* (ERIOCRANIIDAE).

TRICHOPTERA.

Trichoptera of Isle of Wight, BLAIR Proc. Is. Wight nat. Hist. Soc. **4** pp. 161–162.

Larvae of British Trichoptera, 32, HICKIN Proc. R. ent. Soc. Lond. (A) **26** pp. 93–96, 11 figs.

Supplement to list of Trichoptera of Hanover, ILLIÈS Beitr. Naturk. Niedersachs. **4** pp. 85–89.

Redescriptions of the McLachlan types of N. American Trichoptera in the British Museum, KIMMINS & DENNING Ann. ent. Soc. Amer. **44** pp. 111–140, 9 pls.

Larvae of Nearctic Trichoptera, PETERSON Larv. Ins. pt. II pp. 366–372, 2 pls.

Origin and dispersal of Hydrobiosini, Ross Evolution **5** pp. 102–115, 15 figs.

Trichoptera of Lower California, Ross Proc. Calif. Acad. Sci. (4) **27** pp. 65–75, 3 figs.

Revision of Japanese Trichoptera, I, TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942 pp. 239–339, 77 figs.

Trichoptera from the Sunda Is., part I, ULMER Arch. Hydrobiol. Suppl. **19** pp. 1–528, 15 pls.

List of Trichoptera collected in Lapland, especially Petsamo, 1928–1930, VALLE Ann. ent. fenn. **17** pp. 22–25.

RHYACOPHILIDAE.

Rhyacophilidae of New Zealand, pt. 2, MCFARLANE Rec. Canterbury (N.Z.) Mus. **5** pp. 255–265, 8 pls.

Key to larvae of Rhyacophilid genera, MCFARLANE Rec. Canterbury (N.Z.) Mus. **5** p. 271.

Agapetus (*Synagapetus*) *ulmeri* p. 353, (*S.*) *jafiwi*, (*S.*) *latosus* New Guinea, (*Tagapetus* **subgen. n.**) p. 354, (*A.*) *membrosus* China p. 355, (*A.*) *denningi* Oregon p. 356 **spp. n.** figs., Ross J. Wash. Acad. Sci. **41**.—*A. arcita* **sp. n.** California p. 157 figs., DENNING J. Kansas ent. Soc. **24**.—*A. cataractae* **sp. n.** Java p. 54 figs., ULMER Arch. Hydrobiol. Suppl. **19**.—*A. celatus* McL. (=*ophionis* Ross) p. 111, KIMMINS & DENNING Ann. ent. Soc. Amer. **44**.

Anagapetus characters p. 140; *chandleri* California p. 142, *hoodi* Oregon p. 143 **spp. n.**; key to ♂♂ p. 144, Ross Pan-Pacif. Ent. **27**.

Apsilochorema mancum **sp. n.** Java p. 49 figs., ULMER Arch. Hydrobiol. Suppl. **19**.

Costachorema xanthoptera p. 280, *psaroptera* p. 281, *callista* p. 282, *brachyptera* p. 289 larvae figs., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5**.

Electragapetus Ulm., *Eoagapetus* Mart. a subgen.; *tsudai* **sp. n.** Japan p. 352, Ross J. Wash. Acad. Sci. **41**.

Eoagapetus a subgen. of *Electragapetus* q.v.

Hydrobiosis umbripennis McL. (= *lindsayi* Tillyd.); *parumbripennis* p. 256, *harpidiosa*, *kiddi* p. 257, *silvicola*, *spatulata* p. 258, *clavigera*, *charadraea* p. 259, *styx* p. 260 **spp. n.** New Zealand; *parumbripennis* p. 273, *frater*, *clavigera* p. 274, *charadraea* p. 275, *harpidiosa* p. 276, *spatulata*, *silvicola* p. 277, *umbripennis* p. 278 larvae figs., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**

Hydrochorema tenuicaudatum p. 287, *crassicaudatum* p. 288 larvae figs., MCFARLANE t.c.

Naganagapetus **gen. n.**, *kisoensis* **sp. n.** Japan p. 253 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Neurochorema confusum McL. (= *decussatum* Tillyd.) from *Psilochorema* p. 253; *armstrongi* **sp. n.** New Zealand p. 254 fig., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**—*N. confusum* larva p. 281 fig., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**

Palaeagapetus guppyi **sp. n.** Canada p. 1 figs., SCHMID Bull. Inst. R. Sci. nat. Belg. **27** no. 7.

Percivalia shandi p. 263, *borealis* p. 264 **spp. n.** New Zealand; *maxima* larva p. 287 figs., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**

Psilochorema leptoharpax p. 261, *bidens*, *nemorale* p. 262, *macroharpax* p. 263 **spp. n.** New Zealand; *mimicum* p. 283, *nemorale* p. 284, *bidens*, *macroharpax* p. 285, *leptoharpax* p. 286 larvae figs., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**—*P. japonicum* **sp. n.** Japan p. 243 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.—*P. confusum* see *Neurochorema*.

Rhyacophila sp. larva p. 52, BOTOSANEANU Mitt. Mus. Naturk. Magdeb. **3.**—*R. lieftincki* p. 44, *javana* p. 47 **spp. n.** Java figs., ULMER Arch. Hydrobiol. Suppl. **19.**—*R. rayneri* **sp. n.** Lower California p. 66 fig., Ross Proc. Calif. Acad. Sci. (4) **27.**—*R. kuramana* p. 247, *yukii* p. 248 **spp. n.** Japan figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Synagapetus hieianus p. 250, *yasensis* p. 251, *komanus* p. 252 **spp. n.** Japan figs., TSUDA t.c.

Tagapetus **subgen. n.** (type *curvidens* Ulm.) see *Agapetus*.

Tiphobiosis montana larva p. 279 fig., MCFARLANE Rec. Canterbury (N.Z.) Mus. **5.**

PHILOPOTAMIDAE.

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Cyrnus nipponicus **sp. n.** Japan p. 262 figs., Tsuda Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Dipseudopsis voluta Ulm. further description p. 136 ; *morosa* **var. n.** *nervosella* Borneo p. 141 figs., Ulmer Arch. Hydrobiol. Suppl. **19.**

Ecnomus yamashironis p. 267, *omiensis* p. 268 **spp. n.** Japan figs., Tsuda Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

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Paranyctiophylax **gen. n.**, *kisoensis* **sp. n.** Japan p. 265 figs., Tsuda t.c.

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Pseudoneureclipsinae **subfam. n.** p. 123, Ulmer t.c.

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Amphipsyche meridiana Ulm. further description p. 198 figs., Ulmer Arch. Hydrobiol. Suppl. **19.**

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Macronema fenestratum Albda. redescription p. 212 ; *chalybeoides* **n. n.** for *chalybeum* Ulm. 1905 nec Hag. p. 349, Ulmer Arch. Hydrobiol. Suppl. **19.**

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Hydroptila occulta Eaton redescription p. 124 figs., NIELSEN Ent. Medd. **26.**

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Moselyella **gen. n.** for *Ithytrichia violacea* Mort. (type) p. 195, *cyanotrichia* **sp. n.** N.E. Burma p. 198 figs., KIMMINS Ann. Mag. nat. Hist. (12) **4.**

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Apatidea zonella Zett. (=*Apatania inornata* Wall.) further description p. 410; *auricula* characters (=*Apatania fimbriata* auct. nec Pict.) p. 413 figs., KIMMINS Ann. Mag. nat. Hist. (12) **4.**

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Adicella oviformis **sp. n.** Java, Bali p. 446 figs., Ulmer Arch. Hydrobiol. Suppl. **19.**

Leptocerus miyakonis p. 289, *kamonis* p. 290, *mitis* p. 291, *superbus* p. 292, *spinosus* p. 293 **spp. n.** Japan

figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.—*L. kashingensis* **sp. n.** China p. 105 figs., TSUDA J. Shanghai Sci. Inst. (N.S.) **2** 1943.

Notanatolica McL. a valid gen. p. 389 ; *magna* Wlk. p. 390, *gilolensis* McL. p. 398 further descriptions figs., ULMER Arch. Hydrobiol. Suppl. **19.**

Oecetinella hemerobioides McL. (= *confluens* Ulm.) from *Oecetis* pp. 450, 461 figs., ULMER t.c.

Oecetis buitenzorgensis **sp. n.** Java p. 459 figs., ULMER t.c.—*O. yukii* p. 297, *morii* p. 298, *orientalis* p. 299 **spp. n.** Japan figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.—*O. arizonica* **sp. n.** Arizona p. 159 figs., DENNING J. Kansas ent. Soc. **24.**—*O. hemerobioides* see *Oecetinella*.

Setodes biwae p. 300, *minuta* p. 301 **spp. n.** Japan figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.—*S. nigro-ochracea* **sp. n.** Sarawak p. 483 figs., MOSELY Ann. Mag. nat. Hist. (12) **4.**—*S. venusta* p. 429, *amoena* p. 433, *foederata* p. 435 Sumatra, *klakahana* Java p. 431 **spp. n.** figs., ULMER Arch. Hydrobiol. Suppl. **19.**

Symphitoneuria dammermanni **sp. n.** Sumba p. 403 figs., ULMER t.c.

Triaenodes insulana **sp. n.** Key Is. p. 447 figs., ULMER t.c.—*T. yamamotoi* **sp. n.** Japan p. 296 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Trichosetodes japonica **sp. n.** Japan p. 302 figs., TSUDA t.c.—*T. handschini* Java p. 438, *thienemanni* p. 440, *imperfecta* p. 441 Sumatra **spp. n.** figs., ULMER Arch. Hydrobiol. Suppl. **19.**

SERICOSTOMATIDAE.

Ayabeopsyche **gen. n.**, *nipponica* **sp. n.** Japan p. 331 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Brachycentrus kitayamanus **sp. n.** Japan p. 326 figs., TSUDA t.c.

Crunoeciella orientalis **sp. n.** Japan p. 329 figs., TSUDA t.c.

Dinarthropsis subangana **sp. n.** Sumatra p. 495 figs., ULMER Arch. Hydrobiol. Suppl. **19.**

Gastrocentrella **gen. n.**, *unica* **sp. n.** Sumatra p. 482 figs., ULMER t.c.

Göera ranauana Sumatra p. 479, *pugnio* Java p. 480 **spp. n.** figs., ULMER t.c.—*G. kyotonis* **sp. n.** Japan p. 324 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Goerodes dulitensis **sp. n.** Sarawak p. 481 fig., MOSELY Ann. Mag. nat. Hist. (12) **4.**

Helicopsyche lata (also Java) p. 513, *angusta* p. 515 **spp. n.** Sumatra figs., ULMER Arch. Hydrobiol. Suppl. **19.**

Micrasema hanasensis **sp. n.** Japan p. 327 figs., TSUDA Mem. Coll. Sci. Kyoto imp. Univ. (B) **17** 1942.

Neolepidostoma further description p. 497 ; *daabanum* **sp. n.** Key Is. p. 500 figs., ULMER Arch. Hydrobiol. Suppl. **19.**

Sericostoma sp. abnormal larva p. 49, BOTOSANEANU Mitt. Mus. Naturk. Magdeb. **3.**—*S. nigriculum* McL. (=*arizonicum* Banks) p. 136 ; *griseolum* McL. (=*assimilis* Banks) p. 138, KIMMINS & DENNING Ann. ent. Soc. Amer. **44.**

MEGALOPTERA.

List of Megaloptera of N.W. Germany, ALFKEN Abh. naturw. Ver. Bremen **31** 1939 p. 517.

Megaloptera of Isle of Wight, BLAIR Proc. Is. Wight nat. Hist. Soc. **4** p. 160.

Megaloptera of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1941 p. 833.

Early stages of British snake-flies, SYMS Trans. S. Lond. ent. nat. Hist. Soc. **1949–50** p. 177 figs.

Madachauliodes **gen. n.** p. 59, *torrentialis* **sp. n.** Madagascar p. 60 figs., PAULIAN Mém. Inst. sci. Madagascar **6A.**

Neohermes infuscatus Caud. (= *nigrinus* Van Dyke) p. 35 figs., MUNROE Canad. Ent. **83.**—*N. disjunctus* see *Protochauliodes*.

Protochauliodes disjunctus Wlk. from *Neohermes* p. 33 figs., Munroe Canad. Ent. **83.**

NEUROPTERA.

List of Neuroptera of N.W. Germany, Alfken Abh. naturw. Ver. Bremen **31** 1939 pp. 517–520.

Neuroptera of Isle of Wight, Blair Proc. Is. Wight nat. Hist. Soc. **4** pp. 160–161.

Neuroptera of Dahomey (p. 1085), of Togo (pp. 1091–1092), Fraser Bull. Inst. franç. Afr. noire **13.**

Neuroptera from Senegal, Fraser Bull. Inst. franç. Afr. noire **13** pp. 1095–1098.

Neuroptera of the New Forest, England, Fraser J. Soc. Br. Ent. **3** pp. 225–235.

Observations on New Zealand Neuroptera, Hudson Fragm. N.Z. Ent. [1951] pp. 116–120.

List of Solomon Is. Neuroptera, Kimmins Ann. Mag. nat. Hist. (12) **4** p. 785.

Neuroptera from Afghanistan, Kimmins Vidensk. Medd. Dansk naturh. Foren. **112** 1950 pp. 239–241, 1 fig.

Larvae of Nearctic Neuroptera, Peterson Larv. Ins. pt. II pp. 351–360, 4 pls.

Myrmeleonidae.

Myrmecaelurus afghanus **sp. n.** Afghanistan p. 239 fig., Kimmins Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Ithonidae.

Oliarces structure, relationships pp. 32–40 figs., Carpenter Psyche **58.**

Mantispidae.

Key to Mantispid genn. of Tadzhikistan, Kozhanchikov Ent. Obozr. **30** 1949 p. 353.

Forciada **gen. n.** p. 355, *relicta* **sp. n.** Uzbekistan, Tadzhikistan p. 356 fig., Kozhanchikov Ent. Obozr. **30** 1949.

Mantispilla minuta **sp. n.** Tadzhikistan p. 357 figs., Kozhanchikov t.c.

Berothidae.

Acroberotha leveri **sp. n.** Solomon Is. p. 783 figs., Kimmins Ann. Mag. nat. Hist. (12) **4.**

Hemerobiidae.

Drepanacra binocula characters of varr. pp. 118–120 figs., Hudson Fragm. N.Z. Ent. [1951].

Coniopterygidae.

Coniopteryx pulverulenta early stages p. 344 [in Chinese] figs., Yang Ann. ent. sinici **1.**

Conwentzia pineticola, psociformis distinct spp. p. 555; *pineticola* egg, larva p. 558 figs., Collyer Bull. ent. Res. **42.**

Semidalis terminalis **sp. n.** Kenya p. 136 figs., Kimmins Entomologist **84.**—*S.* sp. early stages p. 342 [in Chinese] figs., Yang Ann. ent. sinici **1.**

Chrysopidae.

Ancylopteryx verdcourti **sp. n.** Kenya, Uganda p. 137 figs., Kimmins Entomologist **84.**

Chrysopa aurea **sp. n.** Solomon Is. p. 782 fig., Kimmins Ann. Mag. nat. Hist. (12) **4.**

Nobilinus salomonis **sp. n.** Solomon Is. p. 780 fig., Kimmins t.c.

Nothochrysa germanica characters p. 169; distribution in Europe p. 172 figs., Schmidt Ent. Z. **60.**

MECOPTERA.

List of Mecoptera of N.W. Germany, Alfken Abh. naturw. Ver. Bremen **31** 1939 p. 516.

Mecoptera of Isle of Wight, Blair Proc. Is. Wight nat. Hist. Soc. **4** p. 161.

Larvae of Nearctic Mecoptera, Peterson Larv. Ins. pt. II pp. 362, 364, 1 pl.

Morphology of immature stages of Formosan Panorpidae, Yie Mem. Coll. Agric. Taiwan Univ. **2** no. 4, 111 pp. 27 pls. 6 figs.

Boreus Czech spp. pp. 91–96 figs., MILLER & POVOLNÝ Ent. Listy **13.**

Panorpa fukiensis p. 286, *klapperichi* p. 289 **spp. n.** Fukien figs., TJEDER Bonn. zool. Beitr. **1.**

DIPTERA.

Systematic and biological studies on filth-inhabiting flies of Guam (keys p. 41), BOHART & GRESSITT Bull. Bishop Mus. no. 204 pp. 60–140.

Flies of the British Is., COLYER (in collaboration with C. O. Hammond) 383 pp. 103 pls. (48 col.) 17 figs.

Reticulation theory of wing venation in Diptera, HARDY J. Soc. Brit. Ent. **4** pp. 27–36, 4 figs.

Report on Int. Commission's procedure to end confusion regarding Meigen's 1800 generic names, HEMMING Bull. zool. Nomen. **2** pp. 131–133.

Observations on New Zealand Diptera, HUDSON Fragm. N.Z. Ent. pp. 57–65 [1951].

Larvae of Nearctic Diptera, PETERSON Larv. Ins. pt. II pp. 219–349, 38 pls.

List of Brachycera of Lapland, Jämtland and Härjedalen, RINGDAHL Opusc. ent., Lund **16** pp. 113–186.

Diptera collected in Mauritania by Berland & Villiers 1948–49, SÉGUY Bull. Inst. franç. Afr. noire **13** pp. 317–318.

Nematocera and Brachycera of France, Belgium and Switzerland, SÉGUY Nouv. Atlas Ent. no. 8 pt. I 175 pp. 12 col. pls. 79 figs.; pt. II pp. 1–137, 11 col. pls. 75 figs.

Diptera of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1941 pp. 567–571.

Diptera Brachycera from Madagascan region, I, ZUMPT Mém. Inst. sci. Madagascar **5A** pp. 65–69, 1 fig.

CECIDOMYIIDAE (ITONIDIDAE).

Revision of N. American Lestremiini, PRITCHARD Univ. Calif. Publ. Ent. **8** pp. 239–275, 3 figs.

Allarete **gen. n.** for *Lestremia vernalis* Felt (type), *L. barberi* F. p. 250, PRITCHARD Univ. Calif. Publ. Ent. **8.**

Anarete key to N. American spp.; *edwardsi* p. 259, *felti* p. 262, *anepsia* p. 264 **spp. n.** U.S.A.; *johnsoni* Felt (=*heracleana* F., *Microcerata cockerelli* F., *M. spinosa* F., *M. iridis* Ckll., *M. aldrichii* F.) p. 260; *buscki* F. p. 261, *diervillae* F. p. 262, *corni* F. (=*angustata* Edw., *M. perplexa* F., *M. borealis* F.) from *M.* p. 263 figs., PRITCHARD t.c.—*A. indica, calcuttaense* see *Conarete.*

Anaretella End. (=*Plocimas* End.), key to N. American spp. p. 248; *defecta* Winn. (=*acerifolia* Felt, *pini* F., *tridens* F.); *spiraeina* F. (=*strobli* Edw.) from *Catocha* p. 249; *iola* **sp. n.** Washington p. 250 fig., PRITCHARD Univ. Calif. Publ. Ent. **8.**

Catocha spiraeina see *Anaretella.*

Conarete **gen. n.** for *Anarete indica* Mani, *A. calcuttaense* Nayar p. 255; *crebra* (type) p. 256, *eschata, eluta* p. 257 **spp. n.** Minnesota figs., PRITCHARD Univ. Calif. Publ. Ent. **8.**

Dasyneura hebefolia **sp. n.** New Zealand p. 210 figs., LAMB Trans. roy. Soc. N.Z. **79.**

Diplodontomyia **gen. n.** p. 120, *orientalis* **sp. n.** India p. 121 figs., RAO Indian J. Ent. **11.**

Dyodiplosis fici **sp. n.** India p. 123 figs., RAO t.c.

Gongromastix schalis p. 252, *epista* p. 253 **spp. n.** U.S.A. figs., PRITCHARD Univ. Calif. Publ. Ent. **8.**

Haplusia longipalpia p. 112, *brevipalpia* p. 113 **spp. n.** India figs., RAO Indian J. Ent. **11.**

Lestodiplosis urticae **sp. n.** Holland p. 313 figs., NIJVELDT Ent. Ber., Amst. **13.**

Lestremia cinerea Macq. (=*fusca* Mg., *sylvestris* Felt, *kansensis* F., *franconiae* F., *dyari* F., *fenestrata* Mall., *floridana* F., *garretti* F.) p. 244; *leucophaea* Mg. (=*sambuci* F., *setosa* F., *occidentalis* F.) p. 246, PRITCHARD Univ. Calif. Publ. Ent. **8.**—*L. sancti-johanni* **sp. n.** India p. 109 figs., RAO Indian J. Ent. **11.**—*L. barberi, vernalis* see *Allarete*; *elongata* see *Pararete.*

Meinertomyia manii **sp. n.** India p. 110 fig., Rao Indian J. Ent. **11.**

Microcerata cockerelli, spinosa, iridis, aldrichii see *Anarete johnsoni*; *buscki, diervillae, corni* (*perplexa, borealis*) see *A.*

Neohaplusia **gen. n.**, *neohaplusia* (type) p. 114, *agraensis* p. 116 **spp. n.** India figs., Rao Indian J. Ent. **11.**

Pararete **gen. n.** for *Lestremia elongata* Felt p. 253, Pritchard Univ. Calif. Publ. Ent. **8.**

Pipaldiplosis pipaldiplosis ♀ p. 126 figs., Rao Indian J. Ent. **11.**

Plocimas see *Anaretella.*

Sitodiplosis mosellana characters distinguishing from *Contarinia tritici* in pp. 223–233 [in Chinese] figs., Chu Ann. ent. sinici **1** 1950.

Thomasiniana salvadorae **sp. n.** India p. 117 figs., Rao Indian J. Ent. **11.**

Trisopsis tyroglyphi **sp. n.** Leningrad p. 565, Barnes Bull. ent. Res. **42.**

Wasmaniella clauda **sp. n.** Minnesota p. 254 figs., Pritchard Univ. Calif. Publ. Ent. **8.**

Mycetophilidae (Fungivoridae).

Mycetophilidae of Patagonia and S. Chile, Freeman Dipt. Patag. & S. Chile pt. 3 vii & 138 pp. 49 pls.

Relationships of Mycetophilid genn. based on pleural sclerites, Shaw, F. R. & M. M. Smithson. misc. Coll. **117** no. 3, 23 pp. 45 figs.

Acnemia funerea Patagonia, *vittata* p. 59, *flavicoxa* p. 60 Chile **spp. n.** figs., Freeman Dipt. Patag. & S. Chile pt. 3.

Allocotocera flavicoxa p. 51, *nigricoxa* p. 52 **spp. n.** Patagonia figs., Freeman t.c.

Allodia similis **sp. n.** Argentina p. 92 fig., Freeman t.c.

Aneura longistila p. 52, *basalis* p. 53 **spp. n.** Patagonia figs., Freeman t.c.

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Australomyia **n. n.** for *Centrocnemis* Phil. nec Sign. (Hem.) p. 7; *simplex* p. 8, *bivittata* **spp. n.** Patagonia; *insolita* Wlk. (=*Ditomyia incerta* Big.) p. 9 figs., Freeman t.c.

Austrosynapha reducta p. 70, *unguiculata, forcipata* p. 71, *quadrisetosa, dentata* p. 72, *spinifera, truncata, lamellata* p. 73 **spp. n.** Patagonia, Chile figs., Freeman t.c.

Brachypeza macrochaeta **sp. n.** Crimea p. 407 fig., Bukovskiĭ Ent. Obozr. **30** 1949.

Centrocnemis see *Australomyia.*

Coelosia flavithorax **sp. n.** Patagonia p. 64 fig., Freeman Dipt. Patag. & S. Chile pt. 3.

Ditomyia conjuncta **sp. n.** Patagonia p. 7 fig., Freeman t.c.—*D. incerta* see *Australomyia insolita.*

Dolichodactyla **gen. n.**, *flavithorax* **sp. n.** Chile p. 18 fig., Freeman Dipt. Patag. & S. Chile pt. 3.

Dynatosoma fulviventris **sp. n.** Crimea p. 406 fig., Bukovskiĭ Ent. Obozr. **30** 1949.

Dziedzickia armata p. 65, *funerea, basalis* p. 66 **spp. n.** Patagonia, Chile figs., Freeman Dipt. Patag. & S. Chile pt. 3.

Echinopodium **gen. n.** p. 45, *nigricoxa* (type) p. 46, *digitalis, curvispina* p. 47, *flagellatum* p. 48 **spp. n.** Chile, Patagonia figs., Freeman t.c.

Epicypta key to Neotropical spp. p. 327; *aguarensis* p. 329, *guarani* p. 331, *bapianensis* p. 332, *launensis* p. 333, *jaruensis* p. 334, *tacuensis* p. 336, *duanasi* p. 337, *guanensis* p. 338, *maupiensis* p. 340 **spp. n.** Brazil figs., Lane Dusenia **2.**

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Exechia setigera p. 89, *extensa, bifida, truncata, brevifurcata* p. 90, *funerea* p. 91 **spp. n.** Patagonia, Chile figs., Freeman t.c.—*E. alexanderi* p. 65, *ligulata, pratti* p. 66 **spp. n.** Wyoming figs., Shaw Bull. Brooklyn ent. Soc. **46.**—*E. bilobata* **sp. n.** Wyoming p. 275 fig., Shaw Proc. ent. Soc. Wash. **53.**—*E. spinosa* p. 407, *gracilis* p. 408 **spp. n.** Crimea figs., Bukovskiĭ Ent. Obozr. **30** 1949.

Fungivora triseriata, fusca **spp. n.** Crimea p. 405 figs., BUKOVSKIĬ t.c.

Heterotricha Lw. (=*Palaeoheterotricha* Meun.) p. 26; *seminuda* p. 27, *nudicostalis, equalis* p. 28 **spp. n.** Chile figs., FREEMAN Dipt. Patag. & S. Chile pt. 3.

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Sciaridae (Lycoriidae).

Lycoriids of Peru, Lengersdorf Beitr. Fn Perus Bd. 1 1941 pp. 201–206, 12 figs. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 195–200, 12 figs.].

Lycoria recta **sp. n.** Peru p. 205, Lengersdorf Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War, re-issued in 1951 as Bd. 2 p. 200].

Neosciara insolita p. 202 [196], *ventricosa* p. 202 [197], *acutimedialis*, *pilularia* p. 203 [197], *tenebricosa* p. 203 [198], *latimedialis* p. 204 [198] **spp. n.** Peru figs., Lengersdorf Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. given in square brackets].

Rhynchosciara angelae **sp. n.** Brazil p. 435 figs., Nonato & Pavan Rev. brasil. Biol. **11.**

Bibionidae (Scatopsidae).

Bibionidae of Shansi, N. China, Okada Mushi **22** pp. 65–67.

Bibio hortulanus larval characters p. 159 figs., Böhm Pflanzensch. Ber. **7.**

Philia Meigen 1800 proposal to Int. Comm. zool. Nomen. to validate pp. 153–154, Hardy Bull. zool. Nomen. **2**; Aczél p. 155; Stone p. 155; Hennig p. 348.—*P.* revision of African spp. (key p. 74) pp. 74–94; *obsoleta* p. 91, *splendens* p. 92 **spp. n.** S. Africa; *femorata* Mg. (=*maderae* Woll.) p. 87 figs., Hardy J. Kans. ent. Soc. **24.**—*P.* revision of Pacific spp. pp. 257–275, key p. 257; *bakeri* Philippines p. 260, *crinita* New Zealand p. 262, *exigua* p. 263, *multispinosa* p. 266 New Guinea, *quintana* Java p. 270, *rostrata* New South Wales p. 271 **spp. n.** figs., Hardy Proc. Hawaii. ent. Soc. **14.**

Anisopodidae (Phryneidae, Rhyphidae).

Phryneidae of Shikoku, Miyatake Trans. Shikoku ent. Soc. **2** p. 30.

Simuliidae.

Simuliidae of Guatemala (distribution list p. 54), Dalmat Ann. ent. Soc. Amer. **44** pp. 31–58, 6 pls.

Simuliids of E. Congo, Fain Rev. Zool. Bot. afr. **45** pp. 1–11, 4 figs.

Classification and description of genitalia of S. & Centr. American Simuliids (keys p. 128), Vargas & Díaz Nájera Rev. Soc. mexicana Hist. nat. **12** pp. 123–208, 77 figs.

Cnephia roblesi de Léon, *pachecolunai* de L., *aguirrei* Dalm. from *Simulium* p. 48 figs., Dalmat Ann. ent. Soc. Amer. **44.**—*C. tredecimatum* Edw. valid sp. p. 366, redescription p. 367; *subexcisum* characters p. 371 figs., Grenier & Rageau Ann. Parasit. hum. comp. **26.**

Cnesia raised to gen. p. 130 figs., Vargas & Díaz Nájera Rev. Soc. mexicana Hist. nat. **12.**

Eusimulium raised to gen. p. 169 figs., Vargas & Díaz Nájera t.c.

Gigantodax (*G.*) *aquamarensis* de Léon from *Simulium* p. 50 figs., Dalmat Ann. ent. Soc. Amer. **44.**—*G. horcotiani* ♀ p. 199, early stages p. 200; *wittmeri* **sp. n.** Argentina p. 202 figs., Wygodzinsky An. Inst. Med. reg., Tucumán **3.**

Grenieriella **subgen. n.** (type *lahillei* Patt. & Shann.) see *Simulium*.

Prosimulium damarensis **sp. n.** S.W. Africa p. 30 fig., DE MEILLON & HARDY J. ent. Soc. sthn Afr. **4.**

Simulium of Parc nat. Albert, Belg. Congo pp. 49–53, FREEMAN Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77.—*S.* (*Dyarella*) *acatenangoensis* p. 31, (*Simulium*) *kompi* p. 38, (*Hearlea*) *burchi* p. 42 **spp. n.** Guatemala; *rubicundulum* Knab and *mathesoni* Vargas distinct spp. not synonyms of *virgatum* Coq. p. 36; *microbranchium* to subgen. *Hearlea* from *Simulium* p. 50; (*H.*) *ethelae* ♂ redescription p. 52; *delatorrei* to subgen. *H.* from *Dyarella* p. 53 figs., DALMAT Ann. ent. Soc. Amer. **44.**—*S. iphias* p. 71, *gyas* **spp. n.** Madagascar; *imerinae* ♂ p. 74, pupa p. 76 figs., DE MEILLON Mém. Inst. sci. Madagascar **5A.**—*S. berghei* ♂, ♀; *katangae* Katanga p. 5, *ituriense* Ituri p. 8 **spp. n.** figs., FAIN Rev. Zool. Bot. afr. **45.**—*S. colas-belcouri* p. 222, *loutetense* p. 226 **spp. n.** Congo; *damnosum* p. 228, *albivirgulatum* p. 230 larvae; *ruficorne* p. 231, *adersi* p. 233 nymphs figs., GRENIER & OVAZZA Bull. Soc. Path. exot. **44.**—*S. neavei* ♂ p. 422, pupa p. 424 figs., MCMAHON Bull. ent. Res. **42.**—*S. salopiense* in Denmark p. 446, PETERSEN Ent. Medd. **25.**—*S. fontinale* p. 137, *fluviatile* p. 139 **spp. n.** S. Ussuri, RADZIVILOVSKAYA Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **10** 1948.—*S. columbaczense* all stages p. 414, RUBTZOV Ent. Obozr. **30** 1949.—*S.* (*Dyarella*) *mexicanum* Bell. (=*placidum* Knab) p. 133; *pintoi* d'And. & d'And. (=*guianense* Floch & Abonn.) p. 137; (*Grenieriella* **subgen. n.** p. 141) figs., VARGAS & DÍAZ NÁJERA Rev. Soc. mexicana Hist. nat. **12.**—*S. renauxi* status discussed p. 96, WANSON & HOLEMANS Ann. Parasit. hum. comp. **26.**—*S. jujuyense* Pat. & Sh. (=*mendozana* Enderl.) p. 207, *exiguum* Roub. (=*delpontei* P. & S., *glaucophtalmum* Knab) p. 214, *opalinifrons* p. 217 redescriptions figs., WYGODZINSKY An. Inst. Med. reg., Tucumán **3.**—*S. ignescens* Roub. (=*rubiginosa* End.) redescription p. 223; *romañi* p. 229, *adolfolutzi* p. 234 **spp. n.** Argentina figs., WYGODZINSKY An. Inst. Med. reg., Tucumán **3.**—*S. roblesi, pacheco-lunai, aguirrei* see *Cnephia*; *aquamarensis* see *Gigantodax*.

DEUTEROPHLEBIIDAE.

Deuterophlebia coloradensis ♂ p. 1, ♀ p. 5; adult characters compared with *mirabilis, nipponica, shasta* p. 8 figs., PENNAK Amer. Mus. Novit. no. 1534.—*D. shasta* **sp. n.** California p. 51 figs., WIRTH Pan-Pacif. Ent. **27.**

CERATOPOGONIDAE.

List of Utah Heleidae, KNOWLTON & KARDOS J. Kans. ent. Soc. **24** p. 163.

Atrichopogon speculiger, dubius, cornutus, alveolatus, hexastichus, polydactylus early stages pp. 52–75 figs., NIELSEN Bidr. Skrift., Copenhagen **6** no. 6.

Bezzia bresi **sp. n.** France p. 102 figs., HUTTEL, W. & N. Entomologiste **7.**—*B.* (*Pseudobezzia*) *mallochi* p. 323, (*B.*) *pseudobscura* p. 324 **spp. n.** Virginia figs., WIRTH Proc. ent. Soc. Wash. **53.**

Ceratopogon hirtulus see *Culicoides obsoletus*.

Clinohelea bimaculata pupa p. 321, WIRTH Proc. ent. Soc. Wash. **53.**

Cotocripus caridei see *Dasyhelea*.

Culicoides of S. Africa pp. 3–33, key p. 10; *ravus* De M. (=*tockwensis* De M.) p. 4; *pycnostictus* I. & M. (=*hysipyles* De M.); *praetermissus* C., I. & M. (=var. *egypti* Macf.); *p.* a var. of *distinctipennis* Aust. p. 5; *onderstepoortensis* **sp. n.** Transvaal p. 6; *zuluensis* De M. a var. of *milnei* Aust. (=*lugens* Kieff.) p. 7 figs., FIEDLER Onderstepoort J. vet. Res. **25.**—*C.* revision of American spp. of subgen. *Hoffmania* pp. 437–460; *insignis* Lutz (=*recifei* Barbosa) p. 442; *diabolicus* Hoffman distinct sp. not syn. of *guttatus* Coq. p. 446; *lanei* Panama p. 431, *ocumarensis* p. 455, *cova-garciai* p. 457 Venezuela, *foxi* Puerto Rico, Venezuela p. 461 **spp. n.**; distribution list of American ♂♂ p. 462, figs., ORTIZ Rev. Sanid. Asist. soc., Caracas **15** 1950.——*C. fluvialis* p. 2, *lutzi, foxi* p. 4 redescriptions;

dominicii **sp. n.** Venezuela p. 7; key to Venezuelan spp. p. 8 figs., Ortiz Noved. cient., Caracas Ser. Zool. no. 5.—*C. diminutus* **n. n.** for *wokei* Barbosa nec Fox p. 163, Barbosa Proc. ent. Soc. Wash. **53.** —*C. floridensis* **sp. n.** Florida p. 135 figs., Beck Florida Ent. **34.**—*C. sugimotonis* p. 281, *oxystoma* p. 282 characters [in Chinese] figs., Chang Ann. ent. sinici **1.**—*C. citrinellus* characters p. 475, Huttel, W. & N. Ann. Parasit. hum. comp. **26.**—*C. nubeculosus* anatomy and morphology of early stages pp. 511–567 figs., Lawson Trans. R. ent. Soc. Lond. **102.**—*C. uralensis, erythrocephala* characters p. 91 figs., Sukhova Ent. Obozr. **31** 1950.—*C. punctigerus* p. 101, *javae* p. 103, *bifasciatus* p. 104, *micropunctatus* p. 105, *suborientalis* p. 106, *quadratus* p. 108 **spp. n.** Java figs., Tokunaga Sci. Reps Saikyo Univ., Agric. no. 1. —*C.* Alaska spp. pp. 75–86, key p. 76; *obsoletus* Mg. (=*Ceratopogon hirtulus* Coq.) p. 77; *alaskensis* **sp. n.** Alaska p. 84 figs., Wirth Ann. ent. Soc. Amer. **44.**—*C. tristriatulus* immature stages p. 430 figs., Williams Ann. ent. Soc. Amer. **44.**

Dasyhelea Kieff. (=*Paradasyhelea* Macf.); *caridei* Brèth. from *Cotocripus* p. 460, Lane & Ortiz Rev. Sanid. Asist. soc., Caracas **15** 1950.— *D. verdieri* **sp. n.** France p. 103 figs., Huttel, W. & N. Entomologiste **7.**

Dicrobezzia see *Probezzia.*

Echinohelea lanei **sp. n.** Virginia p. 319 figs., Wirth Proc. ent. Soc. Wash. **53.**

Forcipomyia key to genn. of group p. 471, Harant & Huttel W. & N. Ann. Parasit. hum. comp. **26.**—*F.* (*F.*) *solonensis,* (*Euforcipomyia*) *splendida* p. 315, (*E.*) *fairfaxensis* p. 317 **spp. n.** U.S.A. figs., Wirth Proc. ent. Soc. Wash. **53.**

Helea (*Isohelea*) *virginiana* **sp. n.** U.S.A. p. 318 figs., Wirth t.c.

Holoconops reduced to subgen. of *Leptoconops,* q.v.

Lasiobezzia unica see *Probezzia.*

Lasiohelea taiwana characters p. 280 [in Chinese] figs., Chang Ann. ent. sinici **1.**

Leptoconops (*Holoconops, Styloconops* reduced to subgenn.); (*H.*) *bequaerti* p. 281, (*H.*) *catawbae* new distribution records; (*L.*) *floridensis* **sp. n.** Florida p. 282 figs., Wirth Proc. ent. Soc. Wash. **53.**—*L. borealis* morphology pp. 151–164 figs., Gutzevich Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **10** 1948.

Monohelea mayeri **sp. n.** Venezuela p. 202 figs., Ortiz Mem. Soc. Cient. nat. La Salle **10** 1950.

Palpomyia riouxi **sp. n.** France p. 99 figs., Huttel, W. & N. Entomologiste **7.**—*P. stonei* **sp. n.** Virginia p. 322 figs., Wirth Proc. ent. Soc. Wash. **53.**

Paradasyhelea see *Dasyhelea.*

Parapterobosca **gen. n.,** *anthropophila* **sp. n.** Ivory Coast p. 468 figs., Harant & Huttel, W. & N. Ann. Parasit. hum. comp. **26.**

Probezzia Kieff. (=*Dicrobezzia* Kieff.) p. 25, key to Nearctic spp. p. 27; *ludoviciana* p. 28, *atriventris, sabroskyi* p. 31, *rosewalli* p. 32 **spp. n.** U.S.A.; *unica* Joh. from *Lasiobezzia* p. 30 figs., Wirth Proc. ent. Soc. Wash. **53.**

Pterobosca characters p. 141, key to American spp. p. 142; *floridana* **sp. n.** Florida p. 143, Johannsen Florida Ent. **33.**

Stilobezzia glauca **var. n.** *venezuelensis* Venezuela p. 199 figs., Ortiz Mem. Soc. Cient. nat. La Salle **10** 1950.—*S. maculata* ♀ p. 429 figs., Ortiz Rev. Sanid. Asist. soc., Caracas **15** 1950.

Styloconops reduced to subgen. of *Leptoconops,* q.v.

Chironomidae.

Chironomidae of Equatorial Africa, pt. 2, Kieffer Ann. Soc. ent. Fr. **91** 1922 pp. 1–72, 4 pls.

Tendipedidae of the Suez Canal, Kruseman Bijdr. Dierk. **28** 1949 pp. 249–254, 10 figs.

Chironomidae of French Expedition to Greenland, de Lesse, Strenzke & Thienemann Bull. Soc. ent. Fr. **56** pp. 53–55, 60–61.

Tendipedids of Amu-dar'ya Basin, Uzbekistan, Tadzhikistan, PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950 pp. 116–198, 31 figs.

Descriptions of some terrestrial larvae and pupae from Greenland, STRENZKE in DE LESSE, STRENZKE & THIENEMANN Bull. Soc. ent. Fr. **56** pp. 55–60, 1 fig.

Brillia dendrophila **sp. n.** European Russia p. 279 fig., ZVEREVA Ent. Obozr. **31** 1950.

Calochironomus oxylabis p. 67, *fusconotatum* (designated type) p. 68, *griseonotatus, griseosparsus* p. 69, *iliacus, nilicola* p. 70 **spp. n.** Sudan figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Cardiochilus travassosi **sp. n.** Brazil p. 133 figs., DE OLIVEIRA Pap. avulsos Dep. Zool. S. Paulo **10.**

Chironomus Meigen 1803 proposal to Int. Comm. zool. Nomen. to validate pp. 150–151, SMART Bull. zool. Nomen. **2;** STONE p. 152; HENNIG p. 348.—*C.* (s. str.) larval types pp. 1–8; imaginal characters (appendices of hypopygium) and synonymy pp. 8–20 figs., THIENEMANN & STRENZKE Ent. Tidskr. **72.** —*C.* (s. str.) larval and imaginal forms p. 209, ANDERSEN Ent. Tidskr. **72.**

Cladopelma oculare p. 51, *coronatum* p. 52 Cameroons, *nilotes, pseudolabis* p. 53, *trisetosum* p. 54, *fimbriatum* p. 55 Sudan **spp. n.** figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Cricotopus asetosus p. 133, *adhaerius* p. 134, **spp. n.** Tadzhikistan fig., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.

Cryptochironomus nucus Uzbekistan p. 119, *javaniensis* Tadzhikistan p. 120 **spp. n.** figs., PANKRATOVA t.c.—*C. vytshegdae* **sp. n.** Vuichegda, European Russia p. 271 fig., ZVEREVA Ent. Obozr. **31** 1950.

Cryptocladopelma laccophila ♂ p. 638, synonymy p. 641 figs., THIENEMANN Arch. Hydrobiol. Suppl. **18.**

Diamesa larval characters p. 653, ZAVŘEL & PAX Arch. Hydrobiol. Suppl. **18.**—*D. gemella, inaequabilis* p. 167, *spinosa* p. 168, *adumbrata* p. 169, *selligera, nivalis* p. 170, *quinqaesetosa* p. 171 **spp. n.** Tadzhikistan figs., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.

Dicrotendipes trilabis Sudan p. 63, *cordatus* p. 64, *leucolabis* p. 65 Cameroons **spp. n.** figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Dyscamptocladius larval and pupal characters p. 661, ZAVŘEL & PAX Arch. Hydrobiol. Suppl. **18.**

Eudactylocladius fuscimanus early stages p. 657, ZAVŘEL & PAX t.c.

Eukiefferiella oxiana, sellata p. 135, *masordarjensis* p. 136, *alia, communis* p. 137, *solungulata* p. 138 **spp. n.** Tadzhikistan figs., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.—*E. rivularis* **sp. n.** Pechora, European Russia p. 272 fig., ZVEREVA Ent. Obozr. **31** 1950.

Gillotia fuscipes **sp. n.** Sudan p. 62 figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Glyptotendipes dendrophila **sp. n.** European Russia p. 278 fig., ZVEREVA Ent. Obozr. **31** 1950.

Halliella taurica **sp. n.** Crimea 251, CHERNOVSKIĬ Ent. Obozr. **30** 1949.—*H. caspersi* **sp. n.** Bulgarian Coast of Black Sea p. 16 figs., STRENZKE Dtsch. zool. Z. **1.**—*H. caspersi* larva p. 4 figs., LENZ Dtsch. zool. Z. **1** 1950.

Heptagia accomodata **sp. n.** Tadzhikistan p. 165 fig., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.

Hydrobaenus (*Pseudorthocladius*) *flexuellus* Edw. discussed p. 164; (*Pseudokiefferiella* **subgen. n.**); *angusta* Edw. discussed p. 165, LAURENCE Ent. mon. Mag. **87.**

Kribiocallis fasciatipennis p. 16, *stictoptera* (designated type) p. 17 **spp. n.** Cameroons figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Kribiocharis filitarsis p. 2, *luteipes* p. 3, *annulaticrus* p. 5, *tenuitarsis* p. 6 Cameroons, *albipes* Sudan p. 4 **spp. n.** figs., KIEFFER t.c.

Kribiodoxa stictoptera **sp. n.** Cameroons p. 49 figs., KIEFFER t.c.

Kribiomyia longipalpis **sp. n.** Cameroons p. 18 figs., KIEFFER t.c.

Kribionympha declivis **sp. n.** Cameroons p. 7 figs., KIEFFER t.c.

Kribiophilus pictipennis p. 43, *calcaratus* p. 44 **spp. n.** Cameroons figs., KIEFFER t.c.

Metriocnemus larval characters p. 658, ZAVŘEL & PAX Arch. Hydrobiol. Suppl. **18.**—*M. incompletus* **sp. n.** Tadzhikistan p. 155 fig., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.

Microtendipes subconfluens p. 9, *longinervis* p. 10, *tenuimanus* p. 11, *magnipennis, pilosicornis* p. 12, *truncatus, kribiensis* p. 13, *calcaratus* p. 14, *longiventris, pallidinervis* p. 15 **spp. n.** Cameroons figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Monotanytarsus austriacus Kieff. (=*pseudopraecox* Goetgh.) p. 621; *boreoalpinus* **sp. n.** Swedish Lapland, Alps etc. p. 623; *inopertus* Wlk. (=*scirpeti* Goetgh., *humphriesae* Goetgh.) p. 625 figs., THIENEMANN Arch. Hydrobiol. Suppl. **18.**

Nilodorum brevibucca p. 45 (designated type) (with **var. n.** *stilatum*), *albitarse* p. 46, *magnum* p. 47 **spp. n.** Sudan figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Nilodosis fusca **sp. n.** Sudan p. 48 figs., KIEFFER t.c.

Parachironomus bacilliger **var. n.** *pediformis* Germany p. 105; *b.* early stages p. 106 figs., LENZ Zool. Anz. **147.**

Paratanytarsus and allied genn. larvae and pupae pp. 595–632; (*Ditanytarsus*) *alpestris* **sp. n.** Switzerland p. 604 figs., THIENEMANN Arch. Hydrobiol. Suppl. **18.**

Pelopia marginata **sp. n.** Brazil, larva p. 503, pupa p. 508 figs., LENZ Zool. Anz. **145** 1950 Ergänzungsband (Klatt Festschr.).

Polypedilum van-bemmeli **sp. n.** Suez Canal p. 254 figs., DIAKONOFF Bijdr. Dierk. **28** 1949.—*P. vanderplanki* **sp. n.** N. Nigeria p. 378 figs., HINTON Proc. zool. Soc. Lond. **121.**—*P. fuscipenne* p. 22, *longiforceps* p. 23, *bifalcatum* p. 26, *distans* p. 27, *alboguttatum* p. 29, *fusiforme* p. 30, *nilophilus* p. 33, *trilobatum* p. 34, *fuscoguttatum* p. 37, *hieroglyphicum* p. 38, *niveiforceps* p. 41, *novemguttatum* p. 42 Sudan, *ramiferum* p. 24, *leucolabis* p. 25, *nymphella* p. 26, *brevipecten* p. 27, *pumilio* p. 28, *annulaticrus* p. 31, *quinqueguttatum, septemguttatum* p. 32, *pluriguttatum* p. 34, *sexguttatum* p. 35, *griseoguttatum* p. 36, *octostictum* p. 39 Cameroons, *annulatipes* p. 30, *longicrus* p. 40 Belg. Congo **spp. n.** figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Psectrocladius dendrophila **sp. n.** Vuichegda, European Russia p. 279 fig., ZVEREVA Ent. Obozr. **31** 1950.

Pseudokiefferiella **subgen. n.** (type *curtistylus* Goetgh.) see *Hydrobaenus*.

Smittia tshernovskii **sp. n.** Vuichegda, European Russia p. 280 fig., ZVEREVA Ent. Obozr. **31** 1950.—*S. shadini* p. 156, *orizae* p. 157 **spp. n.** Tadzhikistan figs., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.—*S. duplicata* **sp. n.** Bulgaria p. 684 figs., STRENZKE Arch. Hydrobiol. Suppl. **18.**

Stenochironomus bipunctatus p. 57, *antennalis, pygmaeus* p. 58, *kribiensis* p. 59, *spatuliger, trispinosus* p. 60, *polychaetus* p. 61 **spp. n.** Cameroons figs., KIEFFER Ann. Soc. ent. Fr. **91** 1922.

Sympotthastia zavřeli early stages p. 654, ZAVŘEL & PAX Arch. Hydrobiol. Suppl. **18.**

Syndiamesa fraterna, monstrata **spp. n.** Tadzhikistan p. 166 figs., PANKRATOVA Trud. zool. Inst. Akad. Nauk SSSR **9** 1950.—*S. jacutica* p. 273, *komensis* p. 275 **spp. n.** Vuichegda, European Russia figs., ZVEREVA Ent. Obozr. **31** 1950.

Tanytarsus mancus variations pp. 265–270; *siderophila* **sp. n.** Pechora, European Russia p. 270 figs., ZVEREVA t.c.

Tendipedinae (? gen.) *petshorae* **sp. n.** Pechora, European Russia p. 263 fig., ZVEREVA t.c.

Tendipes komensis Pechora, European Russia p. 263, *dendrophila* Vuichegda, European Russia p. 277 **spp. n.** figs., ZVEREVA t.c.—*T. diakonoffi* p. 249, (*Cryptochironomus*) *incisus* p. 252 **spp. n.** Suez Canal figs., KRUSEMAN Bijdr. Dierk. **28** 1949.

Thalassomyia frauenfeldi further description p. 685 figs., STRENZKE Arch. Hydrobiol. Suppl. **18.**

Trichocladius revision of spp. of northeastern States pp. 24–27, key p. 24, JOHANNSEN Bull. Brooklyn ent. Soc. **46.**—*T.* larval and pupal characters p. 656, ZAVŘEL & PAX Arch. Hydrobiol. Suppl. **18.**—*T. arduus* **sp. n.** (GOETGHEBUER) Ireland p. 209; *trifascia* larva, pupa p. 212 figs., HUMPHRIES Hydrobiologia **3.**

Tshernovskiella **gen. n.** (no sp.) p. 272 fig., ZVEREVA Ent. Obozr. **31** 1950.

CULICIDAE.

Notes on Swedish Culicids, ARDÖ Opusc. ent., Lund **16** pp. 77–79.

Pupae of Culicini of Northwestern U.S.A., DARSIE Mem. Cornell Univ. agric. Exp. Sta. no. 304, 67 pp. 16 pls.

Mosquitos of Perinet region, Madagascar, DOUCET Mém. Inst. sci. Madagascar **6A** pp. 63–82, 11 figs.

Culicids of Vangaindrano region, Madagascar, DOUCET Mém. Inst. sci. Madagascar **6A** pp. 83–114, 4 figs. 1 map 1 graph.

Anophelines of Fr. Guiana, FLOCH & ABONNENC Arch. Inst. Pasteur Guyane Terr. Inini no. 236, 91 pp. 31 figs.

Mosquitos of California, FREEBORN & BOHART Bull. Calif. Acad. Sci. **1** pp. 25–78, 8 pls.

Mosquitos of Wyoming [abstr. of thesis], GERHARDT Univ. Wyo. Publ. **16** pp. 126–127.

Anophelinae and Culicinae of Abyssinia, GIAQUINTO-MIRA Riv. Malariol. **29** 1950 pp. 281–313.

Mosquitos of Bwamba County, Uganda, VIII, HADDOW & others Bull. ent. Res. **42** pp. 207–238.

Culicidae found in Bohemia, KRAMÁŘ Acta Soc. ent. Čsl. **48** pp. 60–65.

List of synonyms of Neotropical Culicidae, LANE Proc. ent. Soc. Wash. **53** pp. 333–336.

Taxonomic list of S. American Anophelines, LEVÍ CASTILLO Riv. Malariol. **30** pp. 75–80.

Key to Culicinae of Dallas area, MCCLESKEY Field & Lab. **19** p. 8.

Mosquitos from Southeastern Polynesia, MARKS Occ. Pap. Bishop Mus. **20** 1951 pp. 123–130, 1 fig.

Culicids of Misiones, Argentina, MARTÍNEZ & PROSEN Misión Estud. Pat. reg. argent. **22** no. 80 pp. 37–43.

Taxonomic significance of little-known external characters of adult mosquitos, MENON Proc. R. ent. Soc. Lond. (B) **20** pp. 63–71, 3 figs.

Culicine larvae of USSR and neighbouring countries, MONCHADSKIĬ Opred. Faune SSSR **37** 288 [+2] pp., 142 figs.

Mosquitos of Guam, REEVES & RUDNICK Amer. J. trop. Med. **31** pp. 640–651.

Mosquitos of the north of USSR, RUMSH Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **10** 1948 pp. 87–95.

Mosquitos of Kamchatka, RUMSH Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **10** 1948 pp. 96–98.

Distribution of Anophelinae around the Caribbean, WHITE Caribbean med. J. **12** 1950 pp. 67–71.

Aëdes keys to subgenn. & spp. of Argentina and neighbouring regions p. 231, list p. 240; *patersoni* Shann. & Del P. distinct sp. not syn. of *crinifer* Theo. p. 229; *serratus* Theo. (=*nubilus* Theo.) p. 230; (*Ochlerotatus*) *raymondi* **sp. n.** Argentina p. 235, DEL PONTE, CASTRO & GARCÍA An. Soc. cient. argent. **151.**—*A.* (*Ochlerotatus*) characters of & key to larvae of *punctor* subgroup pp. 87–99 figs., KNIGHT Ann. ent. Soc. Amer. **44.**—*A.* (*Ochlerotatus*) *camposanus* Dyar valid sp. not syn. of (*O.*) *eupoclamus* D. & K.; redescription p. 383 figs., LEVÍ CASTILLO Rev. Ent., Rio de J. **22.**—*A.* (*Ochlerotatus*) *quasirusticus* **sp. n.** Spain p. 79 figs., TORRES CAÑAMARES Eos **27.**—*A. infirmatus* immature stages pp. 366–369; *scapularis*, *trivittatus* larvae p. 369 figs., BRELAND Ann. ent. Soc. Amer. **44.**—*A.* (*Finlaya*) *albocinctus* male genitalia, pupa p. 80, larva p. 84; (*F.*) *albotaeniatus* var. *mikiranus* male genitalia p. 87, pupa p. 88, larva p. 89 figs., CHOW & MATTINGLY Proc. R. ent. Soc. Lond. (B) **20.**—*A.* (*Finlaya*) *alectorovi* p. 253, (*F.*) *niveus* p. 258 larvae figs., MONCHADSKIĬ Parasitol.

Sborn. zool. Inst. akad. Nauk SSSR **11** 1949.—*A.* (*Finlaya*) *bunanoki* **sp. n.** Japan p. 103, Sasa in Sasa & Ishimura Jap. J. exp. Med. **21.**—*A.* (*Diceromyia*) *grassei* **sp. n.** Madagascar p. 69, Doucet Mém. Inst. sci. Madagascar **6A.**—*A.* (*Geoskusea*) *baisasi* p. 197, (*Aëdimorphus*) *mindorоensis* p. 199, (*A.*) *platylepidus* p. 201 **spp. n.** Philippines; subgenn. *Mucidus, Ochlerotatus, Finlaya* keys to Philippine spp. pp. 211–251 figs., Knight & Hull Pacific Sci. **5.**—*A.* (*Stegomyia*) *pseudoscutellaris* characters; (*S.*) *polynesiensis* **sp. n.** Polynesia p. 138, Marks Ann. trop. Med. Parasit. **45.**—*A.* (*Stegomyia*) *ruwenzori* larva, pupa, adult ♂ pp. 195–197 fig., Gillett Ann. trop. Med. Parasit. **45.**—*A.* (*Stegomyia*) *galloisi* larva p. 110; key to larvae of Japanese spp. of subgen. *Stegomyia* p. 111, Sasa & Kano Jap. J. exp. Med. **21.**—*A.* (*Stegomyia*) *heischi* **sp. n.** Kenya p. 1, van Someren Proc. R. ent. Soc. Lond. (B) **20.**—*A.* (*A.*) of Ceylon pp. 173–179; (*A.*) *spermathecus* p. 175, (*A.*) *petroelephantus*, (*A.*) *carteri* p. 176 **spp. n.** Ceylon; key p. 177 figs., Wijesundara Ceylon J. Sci. (B. Zool.) **24.**

Anopheles distribution list of possible malaria-carrying spp. in Borneo p. 426, McArthur Indian J. Malariol. **4** 1950.—*A. maculipennis* nomenclature of rr. pp. 368–377, Weyer Z. Tropenmed. Parasit. **2.**—*A. gambiae* (E. Africa), *melas* (W. Africa) discussed pp. 487–502 figs., Thomson Bull. ent. Res. **41.**—*A. quadrimaculatus, punctipennis, crucians* early larval instars pp. 224–232 figs., Breeland J. nat. Malar. Soc. **10.**—*A. minor, peryassui* hairs of anal segment new larval differential character p. 363 figs., Galvão Rev. bras. Malariol. **3.**—*A. aitkeni* terminalia of aberrant form p. 73; *venhuisi* **sp. n.** Java, Celebes p. 284 figs., Bonne-Wepster Docum. neerl. indones. Morbis trop. **3.**—*A.* spp. of *leucosphyrus* group pp. 377–383, Colless Indian J. Malariol. **4** 1950.—*A. aztecus* variant egg p. 175 figs., Downs Rev. Inst. Salub. Enferm. trop. Mexico **11** 1950.—*A. hyrcanus* egg p. 25 fig., Eichler, Löpmann & Pagast Z. Tropenmed. Parasit. **3.**—*A.* (*Myzomyia*) *macmahoni* **var. n.** *barkhuusi* Abyssinia p. 294, Giaquinto-Mira Riv. Malariol. **29** 1950.—*A.* (*Pyretophorus*) *christyi* variation pp. 328–332 figs., Lambrecht & Leleup Rev. Zool. Bot. afr. **44.**—*A. rodhaini* further description p. 169 figs., Leleup & Lips Rev. Zool. Bot. afr. **44.**—*A.* (*A.*) *samarensis* **sp. n.** Samar, P. I. p. 502 figs., Rozeboom J. Parasit. **37.**—*A.* (*Kerteszia*) *cruzii* Dyar & Knab (=*montemor* Corrêa, spelling discussed p. 178); (*K.*) *laneanus* C. & Cerq. (=*cruzii* Corrêa nec D. & K.) p. 179, Barretto & Coutinho Arq. Hig. Saúde públ., S. Paulo **15.**—*A.* (*Kerteszia*) *laneanus* Corrêa & Cerqueira reduced to subsp. of *cruzii* D. & K. p. 336, Lane Proc. ent. Soc. Wash. **53.**

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Bironella confusa p. 67, *occulta* p. 71 **spp. n.** New Guinea; *soesiloi* Str. & Chowd. (=*derooki* Soes. & van Sl.) ♀ p. 68 figs., Bonne-Wepster Docum. neerl. indones. Morbis trop. **3.**

Caenocephalus **gen. n.**, *concolor* **sp. n.** New South Wales p. 700 figs., Taylor Trans. ent. Soc. Lond. **1913** 1914.

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Solva bergi **sp. n.** Guadalcanal I. p. 149, JAMES Wasmann J. Biol. **9.**

STRATIOMYIIDAE.

Stratiomyiids of Peru, LINDNER Beitr. Fn Perus Bd. 1 1941 pp. 177–188, 5 figs. [Bd. 2 1951 pp. 172–183, 3 figs.]*

*All but 6 copies of Bd. 1 1941 were destroyed in the War and re-issued as Bd. 2 1951. The pagination of Bd. 1 is followed by that of Bd. 2 in square brackets.

Fourth contribution to S. American Stratiomyiidae, LINDNER Rev. Ent., Rio de J. **22** pp. 245–264, 9 figs.

Adoxomyia weyrauchi **sp. n.** Peru p. 258 figs., LINDNER Rev. Ent., Rio de J. **22.**

Aochletus peruvianus **sp. n.** Peru p. 184 [179], LINDNER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Charisina **gen. n.,** *angustifrons* **sp. n.** Brazil p. 262 fig., LINDNER Rev. Ent., Rio de J. **22.**

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Euparyphus brucensis **sp. n.** Ontario p. 273, STEYSKAL Proc. ent. Soc. Wash. **53.**

Exaireta spiniger, apicalis larvae p. 61 figs., HUDSON Fragm. N.Z. Ent. [1951].

Hermetia condor **sp. n.** Peru p. 256 LINDNER Rev. Ent., Rio de J. **22.**

Hermione calceata, meigeni larvae p. 126 etc. figs., SCHREMMER Oesterr. zool. Z. **3.**

Merosargus superbus Lind. from *Pedicella* p. 248, LINDNER Rev. Ent., Rio de J. **22.**—*M. quadrifasciatus* **sp. n.** Peru p. 178 [173], LINDNER Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Nemotelus titschacki p. 182 [177], *rödingeri* p. 182 [178], *diehli* p. 184 [179] **spp. n.** figs., LINDNER t.c.

Orthogoniocera **gen. n.** for *Eulalia hirayamae* Mats. p. 187 fig., LINDNER Bonn. zool. Beitr. **2.**

Pedicella c-nigrum **sp. n.** Peru p. 247, LINDNER Rev. Ent., Rio de J. **22.**—*P. superbus* see *Merosargus.*

Ptecticus gemmifer Wlk. further description p. 185, LINDNER Bonn. zool. Beitr. **2.**

Rhaphiocera cruciana **sp. n.** Peru p. 246, LINDNER Rev. Ent., Rio de J. **22.**

Sargus decorus **subsp. n.** *alaskensis* Alaska p. 343, JAMES Proc. ent. Soc. Wash. **53.**

Taurocera orientalis **sp. n.** Fukien p. 186, LINDNER Bonn. zool. Beitr. **2.**

TABANIDAE.

Descriptive notes on some Neotropical Tabanidae, FAIRCHILD Ann. ent. Soc. Amer. **44** pp. 441–462, 1 pl.

The genera in Tabanidae proposed by Adolfo Lutz, FAIRCHILD Psyche **57** pp. 117–127.

Revision of Argentine Tabanids, HACK An. Inst. Med. reg., Tucumán **3** pp. 157–184, 59 figs.

Morphological and distributional notes on Swedish Tabanids, KAURI Opusc. ent., Lund **16** pp. 97–109, 8 figs.

Tabanids of Peru, KRÖBER Beitr. Fn Perus Bd. 1 1941 pp. 189–197 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 184–191].

Distribution in Palaearctic Region (especially Italy) of Pangoniini, MARINO Redia **36** pp. 277–290, 5 figs. 4 maps.

Tabanids of California, MIDDLEKAUFF Bull. Calif. Ins. Surv. **1** 1950 pp. 1–24, 1 pl.

Taxonomy of northern Tabanids, MILLER Canad. J. Zool. **29** pp. 240–242.

Validity of Lutz's Tabanid genera published in 1909, PEREIRA BARRETTO Papéis avulsos Dep. Zool. S. Paulo **9** 1950 pp. 61–68.

Revision of list of Tabanids of Iowa, SUTTON & MILLSPAUGH Proc. Iowa Acad. Sci. **57** pp. 535–536.

Tabanids of N. Manchuria, TAKAGI Rep. Inst. Horse-Dis. Manchoukuo no. 2 1941 94 pp. 8 col. pls. 55 figs.

Acanthocerella fuscinervis **sp. n.** Brazil p. 82 figs., PEREIRA BARRETTO An. Fac. Med. Univ. S. Paulo **25.**

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Dichelacera (*D.*) *rex* **sp. n.** Panama p. 447 figs., FAIRCHILD Ann. ent. Soc. Amer. **44.**

Erioneura **gen. n.** for *Tabanus fuscipennis* Wied. p. 91 figs., PEREIRA BARRETTO An. Fac. Med. Univ. S. Paulo **25.**

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Heterochrysops Kröb. valid gen. not subgen. of *Chrysops* p. 317, MARINO Redia **34** 1949.

Leucotabanus pauculus p. 456, *leucogaster* p. 458 Brazil, *weyrauchi* Ecuador, Peru p. 457 **spp. n.** figs., FAIRCHILD Ann. ent. Soc. Amer. **44.**

Nemorius Rond. valid gen. not subgen. of *Chrysops* p. 317, MARINO Redia **34** 1949.

Osca rubriventris Krb. redescription p. 177 figs., HACK An. Inst. Med. reg., Tucumán **3.**

Pachyschelomyia **gen. n.**, *notopleuralis* **sp. n.** Brazil p. 93 figs., PEREIRA BARRETTO An. Fac. Med. Univ. S. Paulo **25.**

Phaeotabanus Lutz valid gen.; *dissimilis* **sp. n.** Brazil p. 90 figs., PEREIRA BARRETTO t.c.

Psalidia fairchildi **sp. n.** Brazil p. 81 figs., PEREIRA BARRETTO t.c.

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Turanochrysops Stack. valid gen. not subgen. of *Chrysops* p. 317, MARINO Redia **34** 1949.

RHAGIONIDAE (LEPTIDAE).

Preliminary list of Rhagionids of Iowa, RHODEBECK & MILLSPAUGH Proc. Iowa Acad. Sci. **57** pp. 529–530.

Atrichops milloti **sp. n.** Madagascar p. 395 figs., SÉGUY Mém. Inst. sci. Madagascar **6A**.

THEREVIDAE.

Therevidae of Peru, KRÖBER Beitr. Fn Perus Bd. 1 1941 p. 197 [all but 6 copies destroyed in the War; reissued in 1951 as Bd. 2 pp. 192–193].

Anabarhynchus bilineatus larva, pupa p. 63 figs., HUDSON Fragm. N.Z. Ent. [1951].

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ACROCERIDAE (CYRTIDAE).

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Ogcodes kuscheli **sp. n.** Juan Fernandez I., p. 189, SABROSKY Rev. chil. Ent. **1**.

Oncodes nigrotarsis **var. n.** *obusensis* p. 36; *esakii* **sp. n.** p. 37 Japan figs., ÔUCHI J. Shanghai Sci. Inst. (N.S.) **2** 1942.

Philopota globulifera redescription p. 30; *satoi* Korea, *mokanshanensis* p. 32, *yütsienensis* China, *takasagoensis* Formosa p. 33 **spp. n.** figs., ÔUCHI t.c.

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Asilids of Parc nat. Albert, Belg. Congo, BROMLEY Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77 pp. 45–48.

Use of prosternum in classifying Asilidae, CLEMENTS Proc. R. ent. Soc. Lond. (B) **20** pp. 10–14, 5 figs.

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Discussion on systematic position of Braulidae based on buccal apparatus, GOUIN Arch. Zool. exp. gén. (Notes et Rev.) **88** pp. 123–130, 5 figs.

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Pipunculus Latr. [1802–03] proposal to Int. Comm. zool. Nomen. to validate p. 140, RAPP Bull. zool. Nomen. **2**; OLDROYD p. 141; STONE pp. 142–143; HARDY pp. 144–145, 346–347; ACZÉL pp. 146–147; SMART pp. 148–149.

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Notes on Syrphids, IX, VAN DOESBURG Ent. Ber., Amst. **13** pp. 275–278, 3 figs.

Further contribution to the Syrphids of M. Harris, 1776, GOFFE Entomologist **84** pp. 195–204.

Syrphids of Peru, SACK Beitr. Fn Perus Bd. 1 1941 pp. 97–120, 7 figs. [all but 6 copies destroyed in the War, re-issued in 1951 as Bd. 2 pp. 93–116, 7 figs.].

Allograpta chilensis p. 98 [94], *scutellata* p. 99 [95] **spp. n.** Peru fig., SACK Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Ceratophyia flava **sp.n.** Peru p. [117] 113, SACK t.c.

Ceratrichomyia **gen. n.**, *behara* **sp. n.** Madagascar p. 14 figs., SÉGUY Rev. franç. Ent. **18.**

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Crepidomyia genuina Will. (=*tricrepis* Shann.); *tincta* **sp. n.** Brazil p. 453 figs., FLUKE Acta zool. lilloana **9** [preprint 1950].—*C. dion* p. 183, *cybele* p. 184 **spp. n.** Peru, HULL Pan-Pacif. Ent. **27.**

Dolichogyna peruana **sp. n.** Peru p. 114 [110], SACK Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].

Epistrophe Wlk. status discussed p. 137, FLUKE Trans. Wisc. Acad. Sci. Arts Lett. **40** 1950. Corrections in Ent. News **62** pp. 217–218.

Episyrphus a subgen. of *Stenosyrphus*, q.v.

Eristalis pusioides **sp. n.** Peru p. 68, HULL J.N.Y. ent. Soc. **59.**—*E. macula* **sp. n.** Peru p. 112 [108], SACK Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

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* All but 6 copies of Bd. 1 1941 were destroyed in the War and re-issued in 1951 as Bd. 2. The pagination of Bd. 1 is followed by that of Bd. 2 in square brackets.

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Melanostoma talamaui see *Xanthandrus*.

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Metasyrphus Mats., *Posthosyrphus* End. a subgen. p. 141, FLUKE Trans. Wisc. Acad. Sci. Arts Lett. **40** 1950. —*M.* (*Posthosyrphus*) *golbachi* **sp. n.** Argentina, Brazil p. 447 figs., FLUKE Acta zool. lilloana **9** [preprint 1950].

Myiatropa fasciata **sp. n.** Peru p. 115 [111], SACK Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Neplas sapphirina **sp. n.** Peru p. 185, HULL Pan-Pacif. Ent. **27**.

Oreristalis seyrigi **sp. n.** Madagascar p. 16, SÉGUY Rev. franç. Ent. **18**.

Phalacromyia bimaculata **sp. n.** Peru p. 110 [106], SACK Beitr. Fn Perus Bd. 1941 [Bd. 2 1951].*

Platycheirus ciliger Lw. (=*tarsalis* Schum. nec Wlk.) p. 273, GOFFE J. Soc. Brit. Ent. **3**.

Posthosyrphus a subgen. of *Metasyrphus*, q.v.

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Spilomyia revision of N. American spp. 11 pp., key p. 3; *crandalli* **sp. n.** Arizona p. 7; *kahlii* Snow (=*xanthocauda* CURR.) p. 10, CURRAN Amer. Mus. Novit. no. 1492.

Stenosyrphus Mats., *Episyrphus* M. (=*Meliscaeva* Frey) reduced to subgen., scope p. 139; *Mercurymyia* **subgen. n.** p. 140 figs., FLUKE Trans. Wisc. Acad. Sci. Arts Lett. **40** 1950. —*S.* (*Episyrphus*) *golbachi* Argentina p. 441, (*E.*) *opacus* Ecuador p. 443, (*E.*) *lanei* Brazil p. 444 **spp. n.**; (*E.*) *diversifasciatus* **f. n.** *meridionalis* Argentina p. 446 figs., FLUKE Acta zool. lilloana **9** [preprint 1950].

Syrphus taxonomy based on male genitalia pp. 115–148 figs., FLUKE Trans. Wisc. Acad. Sci. Arts Lett. **40** 1950. Corrections in Ent. News **62** pp. 217–218.—*S. shorae* **n. n.** for *willistoni* Fluke nec Ckll. p. 440, FLUKE Acta zool. lilloana **9** [preprint 1950].

Temnocera robusta **sp. n.** Peru p. 109 [105], SACK Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Toxomerus aquilinus p. 100 [96], *incaicus* p. 101 [97], *nasutus* p. 102 [98], *ornatus* p. 103 [99] **spp. n.** Peru figs., SACK t.c.

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Vadonimyia **gen. n.**, *discophora* **sp. n.** Madagascar p. 16 figs., SÉGUY Rev. franç. Ent. **18**.

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Xanthandrus talamaui de Meij. (=*brevicornis* Curr.) from *Melanostoma* p. 278 figs., VAN DOESBURG Ent. Ber., Amst. **13**.

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Catalogue of Neotropical Conopidae, ACZÉL Acta zool. lilloana **9** [preprint 1950 in Z.R. **87** 1950] pp. 49–84.

* See footnote on p. 388.

Conopidae of Peru, KRÖBER Beitr. Fn Perus Bd. 1 1941 pp. 197–199 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 193–194].

Macroconops sinensis **sp. n.** E. China p. 61 figs., ÔUCHI J. Shanghai Sci. Inst. (N.S.) **2** 1942.

Muscoidea Calyptrata.

Classification of Muscoidea Calyptrata (keys to N. American famm. p. 347), ROBACK Ann. ent. Soc. Amer. **44** pp. 327–361, 7 pls. 2 figs.

OESTRIDAE.

Larvae of Oestrids, GRUNIN Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **12** 1950 pp. 229–257 figs.

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Oestromyia pallasi larva p. 249 fig., GRUNIN t.c.—*O. satyrus* larva p. 59 fig., HLINOVSKÝ Acta Soc. ent. Čsl. **48.**

Oestrus caucasicus **subsp. n.** *gvozdevi* S. Kazakstan p. 89 fig., GRUNIN Ent. Obozr. **31** 1950.—*O. ovis* larva p. 240 figs., GRUNIN Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **12** 1950.

Pallasiomyia **gen. n.**, RUBTZOV [?described in Sci. Meth. Notes Ch. Admin. Reserves **5** 1939 p. 118 in Russian—cf. Z.R. **86** 1949 p. 334].

Pharyngomyia picta larva p. 237 figs., GRUNIN Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **12** 1950.

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Key to Phasiinae parasites of Pentatomidae, RODENDORF Vriednaia tcherepachka (*Eurygaster intergriceps*) **2** 1947 pp. 79–88 [In Russian; French abstract received from C. Dupuis].

Acaulona peruviana note on original description p. 210, SABROSKY Proc. ent. Soc. Wash. **53.**

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Belvosia auratilis p. 1, *ansata* p. 2, *matamorosa* p. 3 Mexico, *villaricana* Paraguay p. 4 **spp. n.**, REINHARD Bull. Brooklyn ent. Soc. **46.**

Centeter ussuriensis **sp. n.** Maritime Prov. p. 418, RODENDORF Ent. Obozr. **30** 1949.

Chorezmia memorabilis **sp. n.** Turkmenistan p. 420 figs., ZIMIN Ent. Obozr. **30** 1949.

Enchomyia erythrocera redescription p. 60, CORTÉS P. Agric. tecn., Chile **10.**

Epalpodes chillanensis **sp. n.** Chile p. 238, CORTÉS P. Rev. chil. Ent. **1.**

Gaediophana monnula **sp. n.** Mexico p. 5, REINHARD Bull. Brooklyn ent. Soc. **46.**

Guerinia trudis **sp. n.** U.S.A. p. 8, REINHARD t.c.

Hebia flavipes last instar p. 253 figs., GRADWELL Ent. mon. Mag. **87.**

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Rhodogyne scope p. 129; *rotundatum, clavatum* characters p. 134, DUPUIS Bull. Soc. zool. Fr. **76.**—*R. clavatum* S. European Russia,

Centr. Asia, *desertorum* Centr. Asia **spp. n.** p. 84 figs. [In Russian; French abstract received from C. Dupuis.], RODENDORF Vriednaia tcherepachka (*Eurygaster integriceps*) **2** 1947.—*R. costata* see *Strawinskiomyia*.

Ruiziella **gen. n.** (Tachininae) p. 254, *frontosa* (type) p. 255, *luctuosa* p. 257 **spp. n.** Chile, CORTÉS P. Rev. chil. Ent. **1.**

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Strawinskiomyia **gen. n.** for *Rhodogyne costata* Panz. p. 131 fig., DUPUIS Bull. Soc. zool. Fr. **76.**

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Key to and characters of sternites and tergites of female Japanese blowflies, KANO & SATO Jap. J. exp. Med. **21** pp. 229–241, 14 figs.

List of Alaskan blowflies, SAILER & LIENK Canad. Ent. **83** p. 209.

Preliminary list of Calliphorinae of Iowa, YOSHIMOTO & MILLSPAUGH Proc. Iowa Acad. Sci. **57** (1950) [? 1951] pp. 545–547.

Aldrichina grahami larva p. 134, KANO & SATO Jap. J. exp. Med. **21.**

Calliphora terrae-novae larva p. 133, KANO & SATO t.c.—*C.* descriptions of spp. of S.E. Szechuan pp. 181–200 figs., THOMAS Proc. zool. Soc. Lond. **121.**

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Chrysomyia chloropyga and f. *putoria* discussed p. 67, ZUMPT t.c.—*C.* descriptions of spp. of S.E. Szechuan pp. 151–165 figs., THOMAS Proc. zool. Soc. Lond. **121.**

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Musca (*Biomyia*) *liberia* **sp. n.** Liberia p. 2, SNYDER op. cit. no. 1533. —*M. domestica* monograph xi & [3+] 584 pp. figs., WEST The housefly 1951.—*M. amica* **sp. n.** Siberia, Mongolia, Russian Far East p. 145 figs., ZIMIN Fn SSSR, Ins.-Dipt. **18** no. 4.

Mydaea key to Ethiopian spp. p. 643 ; *geniculata* Stein (=*Afromydaea punctatipennis* Mall.) p. 646 ; (*Myiospila*) *prosternalis* Eritrea p. 647, (*M.*) *bicoloripes* Cape Province p.649, (*M.*) *trinotata* Kenya **spp. n.**; (*M.*) *maculinervis* Mall. emendation of *maculiventris* p. 652 figs., VAN EMDEN Ruwenzori Exped. 1934–35 **2.**—*M. pallidicornis* see *Dimorphia flavicornis* ; *acuta* see *Helina coniformis* ; *multiplicata* see *H. fasciata*.

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Hippoboscids of Tristan da Cunha, CRICHTON Ent. mon. Mag. **87** pp. 21–22.

Hippoboscidae of Wisconsin and adjacent States, MACARTHUR Bull. publ. Mus. Milwaukee **8** 1948 pp. 367–440, 1 pl. 28 figs.

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Distribution of Pallopteridae in Britain, PARMENTER Ent. Rec. **63** pp. 304–306.

Lonchaea (*L.*) *tashkentica* **sp. n.** Tashkent p. 80, RODENDORF Ent. Obozr. **31** 1950.

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The Kearns collection of Australian fruitflies, HARDY Pacific Sci. **5** pp. 115–189, 32 figs.

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Acidiella (*Pseudacidia*) *accepta* **sp. n.** Japan p. 1 fig., ITO Sci. Rep. Fac. Agric. Naniwa Univ. **1** 1950.

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Euleia basihyalina **sp. n.** N. China p. 8 fig., HERING Siruna Seva (Bl. FruchtflKunde) **7.**

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Eurosta solidaginis early stages pp. 11–12 figs., URLER Mem. Cornell agric. Exp. Sta. no. 300.

Hemileophila undosa **sp. n.** Japan p. 2 figs., ITO Sci. Rep. Fac. Agric. Naniwa Univ. **1** 1950.

* All but 6 copies of Bd. 1 1941 were destroyed in the War and re-issued in 1951 as Bd. 2. The pagination of Bd. 1 is followed by that of Bd. 2 in square brackets.

Hemizeugodacus **subgen. n.** (type *algaiae* sp. n. (emended to *aglaiae* 1952)) see *Dacus*.

Hendelina **n. n.** for *Pseudospheniscus* Hend. nec Amegh. (Aves), key to Pacific spp. p. 179 ; *australina* **sp. n.** Australia p. 180 figs., HARDY Pacific Sci. **5**.

Heterodaculus **subgen. n.** (type *visendus* sp. n.) see *Dacus*.

Indaciura basivitta **sp. n.** S. India p. 10 fig., HERING Siruna Seva (Bl. FruchtflKunde) **7**.

Lamproxyna titschacki **sp. n.** Peru p. 152 [150], HERING Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

Lamproxynella **gen. n.** for *Trypanea heliodes* Hend. p. 163 [160], HERING t.c.

Neothemara formosipennis characters p. 6 (with **f. n.** *trigonifera* New Guinea p. 7), HERING Siruna Seva (Bl. FruchtflKunde) **7**.

Nitrariomyia **gen. n.** p. 423, *lukjanovitshi* **sp. n.** Astrakhan p. 424 fig., RODENDORF Ent. Obozr. **30** 1949.

Orellia falcata **subsp. n.** *compta* Rhodes I. ; key to subspp. p. 11, HERING Siruna Seva (Bl. FruchtflKunde) **7**.

Paroxyna fonica **n. n.** for *longirostris* Thoms. nec Lw., characters p. 14 fig., HERING t.c.—*P. basifasciata* p. 159 [155], *bigutta* p. 160 [156], *planicapitis* [157], *taenipennis* [158] p. 162 Peru, *enigma* p. 160 [157] Uruguay **spp. n.**, HERING Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*—*P. plantaginis* Hal. (=*Tephritis pura* Boh.) ; *cicerbitae* **sp. n.** Sweden p. 82 fig., HERING Opusc. ent., Lund **16**.—*P. salina* p. 710, *saltoria* p. 711, *shiraensis* p. 712 **spp. n.** Kilimanjaro, MUNRO Ann. Mag. nat. Hist. (12) **4**.

Philophylla characters p. 4 ; *takeuchii* **sp. n.** Japan p. 5 figs., ITO Sci. Rep. Fac. Agric. Naniwa Univ. **1** 1950.

Protensina Hend. a subgen. of *Ensina*, q.v.

Pseudonoeëta alini **sp. n.** China p. 15 fig., HERING Siruna Seva (Bl. FruchtflKunde) **7**.

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Rhagoletis alternata, basiola distinguishing characters ; *b.* O.S. (=*Tephritis flavonotata* (Macq.) of Lw., *Spilographa setosa* Doane) p. 47 figs., STONE Proc. ent. Soc. Wash. **53**.—*R. willinki* **sp. n.** Argentina p. 319 figs., ACZÉL Acta zool. lilloana **9** [preprint 1950].

Rhagoletotrypeta **gen. n.** p. 313, *xanthogastra* **sp. n.** Argentina p. 315 figs., ACZÉL t.c.

Rioxa key to Australian spp. p. 183 ; (*Dirioxa*) *confusa* **sp. n.** Queensland p. 183, HARDY Pacific Sci. **5**.—*R. bicolor* see *Acanthoneura*.

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Stoneola **gen. n.** for *Anastrepha fuscobasalis* Her. p. 140 [136], HERING Beitr. Fn Perus Bd. 1 1941 [Bd. 2 1951].*

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Trypeta electa Say (=*Tephritis flavonotata* Macq.) p. 46 figs., STONE Proc. ent. Soc. Wash. **53**.—*T. narytia* see *Herina* (OTITIDAE).

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* See footnote on p. 396.

OTITIDAE (ORTALIDAE, PLATYSTOMIDAE, PYRGOTIDAE, TANYPEZIDAE, RICHARDIIDAE, PHYTALMIIDAE, ULIDIIDAE).

Catalogue of American Richardiinae, ACZÉL Acta zool. lilloana **9** 1951 [preprint 1950] pp. 5–47.

Keys to subfamm. of Pyrgotidae and to genn. of Lochmostyliinae, KEISER Mitt. schweiz. ent. Ges. **24** p. 124.

Euprosopia kienyangensis Ôuchi from *Neoestromyia*, revised description p. 39.; *chinensis* **sp. n.** E. China p. 41 fig., ÔUCHI J. Shanghai Sci. Inst. (N.S.) **2** 1942.

Herina review of N. American spp. pp. 308–314 (key p. 309) ; *canadensis* Johns. from *Tephronota* p. 309 ; *narytia* Wlk. (from *Trypeta*) redescription p. 310 ; *nigribasis* **sp. n.** Manitoba p. 312 figs., MCALPINE Canad. Ent. **83.**

Lochmostylia Hend. (= *Travassomyia* Lopes) ; *borgmeieri* Hend. further description p. 114 ; *lopesi* **n. n.** for *borgmeieri* Lopes (from *T.*) nec Hend. p. 118 figs., KEISER Mitt. schweiz. ent. Ges. **24.**

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Tylopterna Bez. transferred to Chloropidae, q.v.

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Tylos Meigen 1800 proposal to Int. Comm. zool. Nomen. to validate pp. 156–157, ACZÉL Bull. zool. Nomen. **2**; SMART pp. 158–159 ; STONE p. 160 ; VANDEL p. 347 ; HENNIG p. 348 ; HOLTHUIS op. cit. **6** p. 128.

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Sphaeroceridae of Ruwenzori Expedition 1934–35 (with key to brachypterous and apterous genn. p. 847), RICHARDS Ruwenzori Exped. 1934–35 **2** no. 8 pp. 829–851, 10 figs.

Sphaeroceridae of Belg. Congo, II, III, VANSCHUYTBROECK Bull. Inst. R. Sci. nat. Belg. **27** no. 33, 16 pp. 3 figs., no. 41, 20 pp. 4 figs.

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Opacifrons ghesquièrei **sp. n.** Belg. Congo p. 10 fig., VANSCHUYTBROECK Bull. Inst. R. Sci. nat. Belg. **27** no. 41.

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Poecilosomella mirabilis **sp. n.** Belg. Congo p. 12 fig., VANSCHUYTBROECK Bull. Inst. R. Sci. nat. Belg. **27** no. 41.

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Safaria **gen. n.** for *Sphaerocera cornuta* Duda p. 17; *forcipata* (type) p. 15, *chelata* p. 17 **spp. n.** Kenya figs., RICHARDS Boll. Ist. Ent. Bologna **18** 1950.—*S. chelata* emended description p. 268; *abyssinica* **sp. n.** Abyssinia p. 269 figs., RICHARDS op. cit. **18** 1951.

Skottbergia a subgen. of *Leptocera*, q.v.

Sphaerocera (*Lotobia*) *flava* p. 3, (*Safaria*) *ghesquièrei* p. 4 **spp. n.** Belg. Congo figs., VANSCHUYTBROECK Bull. Inst. R. Sci. nat. Belg. **27** no. 33. —*S. longipes* **sp. n.** Abyssinia p. 269 figs., RICHARDS Boll. Ist. Ent. Bologna **18**.—*S. cornuta* see *Safaria*.

Thoracochaeta key to spp. p. 186; *rudis* **sp. n.** Belgium p. 187, VANSCHUYTBROECK Bull. Ann. Soc. ent. Belg. **87**.

Trachyopella ealensis **sp. n.** Belg. Congo p. 15 fig., VANSCHUYTBROECK Bull. Inst. R. Sci. nat. Belg. **27** no. 41.

SIPHONAPTERA.

Suctoria of Parc nat. Albert, Belg. Congo, COOREMAN Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77 pp. 7–8, 2 figs.

Suctoria of Belg. Congo, II, COOREMAN Rev. Zool. Bot. afr. **44** pp. 165–166.

Discussion on the name for the order of fleas, HOPKINS Entomologist **84** pp. 208–214.

Preliminary list of some Wisconsin fleas, KNIPPING, MORGAN & DICKE Trans. Wisc. Acad. Sci. Arts Lett. **40** 1950 pp. 199–206.

Larvae of Nearctic Siphonaptera, PETERSON Larv. Ins. pt. II pp. 362–363, 1 pl.

Siphonaptera of France, Belgium and Switzerland, SÉGUY Nouv. Atlas Ent. no. 8 pt. II pp. 139–159, 1 col. pl. 9 figs.

List of fleas of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1939 pp. 551–553.

Fleas collected by Chicago Nat. Hist. Mus. Expedition to Philippines, 1946–47, TRAUB Proc. biol. Soc. Wash. **64** pp. 1–21, 7 pls.

Records of fleas from New Mexico, TRAUB & HOFF Amer. Mus. Novit. no. 1530 23 pp. 20 figs.

Aphaniptera of Peru, WAGNER Beitr. Fn Perus Bd. 1 1941 pp. 207–209 [all but 6 copies destroyed in the War and re-issued as Bd. 2 1951 pp. 201–203].

Fleas on rodents in New Mexico, near Albuquerque, WILLIAMS & HOFF Proc. U.S. nat. Mus. **101** no. 3278 pp. 305–313, 1 fig.

Siphonaptera of Wyoming [abstr. of thesis], WISEMAN Univ. Wyo. Publ. **16** pp. 273–274.

Anomiopsyllus traubi **sp. n.** Mexico p. 197 figs., BARRERA Ciencia **11.**—*A. novomexicanensis* **sp. n.** N. Mexico p. 307 figs., WILLIAMS & HOFF Proc. U.S. nat. Mus. **101** no. 3278.

Catallagia dacenkoi **subsp. n.** *fulleri* Canada p. 157 figs., HOLLAND Canad. Ent. **83.**

Ceratophyllus spp. from Canada pp. 281–289 (key p. 287); *lari* **sp. n.** Northwest Territories p. 282; *tundrensis* Holl. a subsp. of *lunatus* p. 286 figs., HOLLAND t.c.

Chiastopsylla nama **sp. n.** S.W. Africa p. 34 fig., DE MEILLON & HARDY J. ent. Soc. sthn Afr. **14.**

Craneopsylla wolffhuegeli Roths. a form of *minerva* Roths. p. 533, HOPKINS Ann. Mag. nat. Hist. (12) **4.**

Ctenocephalides felis larva p. 121 figs., ELBEL J. Parasit. **37.**

Ctenophthalmus musculi Kol. designated type p. 539, HOPKINS Ann. Mag. nat. Hist. (12) **4.**

Dactylopsylla bluei **subsp. n.** *psilos* p. 128; *pentachaeta* p. 131, *digitenua* p. 134, *minidoka* p. 136 **spp. n.** U.S.A. figs., PRINCE & STARK Pan-Pacif. Ent. **27.**

Dinopsyllus brachypecten **sp. n.** Madagascar p. 407 figs., SMIT Ann. Mag. nat. Hist. (12) **4.**

Euctenophthalmus obtusus **subsp. n.** *recurvus* Moravia p. 236 figs., PEUS Acta Soc. zool. bohemoslov. **15.**

Foxella utahensis Wagn. a sp. not subsp. of *ignota* Bak. p. 183; *u.* **subsp. n.** *arizonensis* U.S.A. p. 184 figs., HUBBARD Fleas western N. America 1947.

Hollandiana **subgen. n.** (type *princei* Holl. & Jam.) see *Nearctopsylla.*

Hoogstraalia **gen. n.**, *turdella* **sp. n.** Mindanao p. 97 figs., TRAUB Proc. ent. Soc. Washington **53.**

Jellisonia wisemani **sp. n.** Mexico p. 147 figs., EADS J. Parasit. **37.**

Jordanopsylla **gen. n.**, *allredi* **sp. n.** Utah p. 264 figs., TRAUB & TIPTON J. Wash. Acad. Sci. **41.**

Leptopsylla R. & J. availability of name referred to Int. Comm. zool. Nomen. p. 21, JORDAN Bull. zool. Nomen. **2**; HEMMING pp. 22–25.—*L. algira* (with **subsp. n.** *tuggurtensis* Algeria p. 27), *aethiopicus* (with **subsp. n.** *nakuruensis* Kenya p. 31) distinguishing characters p. 37, key to African subspp. p. 38 figs., SMIT Tijdschr. Ent. **93.**—*L. adelpha* see *Peromyscopsylla hesperomys.*

Megarthroglossus procus **subsp. n.** *oregonensis* p. 299; *divisus* **subsp. n.** *wallowensis* p. 301 U.S.A., HUBBARD Fleas western N. America 1947.

Meringis nidi **sp. n.** N. Mexico p. 312 figs., WILLIAMS & HOFF Proc. U.S. nat. Mus. **101** no. 3278.—*M. altipecten* **sp. n.** New Mexico p. 6 figs., TRAUB & HOFF Amer. Mus. Novit. no. 1530.

Monopsyllus ciliatus **subsp. n.** *kincaidi* U.S.A. p. 232, HUBBARD Fleas western N. America 1947.

Myodopsylla nordina **sp. n.** New Mexico p. 11 figs., TRAUB & HOFF Amer. Mus. Novit. no. 1530.

Nearctopsylla (*Hollandiana* **subgen. n.** p. 544), HOPKINS Ann. Mag. nat. Hist. (12) **4.**

Neopsylla specialis ♀ p. 263, ♂ further description p. 264, LI Peking nat. Hist. Bull. **19.**

Nosopsyllus fasciatus larva p. 121 figs., ELBEL J. Parasit. **37.**

Orchopeas sexdentatus, leucopus larvae p. 121 figs., ELBEL t.c.

Peromyscopsylla adelpha Roths. from *Leptopsylla* and subsp. of *hesperomys* Bak. p. 540; *draco* **sp. n.** Arizona p. 541; *hamifer* Roths. (=f. *markworthi* Hubb.) p. 543, HOPKINS Ann. Mag. nat. Hist. (12) **4.**

Plocopsylla ulysses **sp. n.** Ecuador p. 529 figs., HOPKINS t.c.

Polygenis vazquezi **sp. n.** Mexico p. 461 fig., VARGAS Medicina, México **31.**

Rhadinopsylla proposal to Int. Comm. zool. Nomen. to validate *acuminata* Ioff & Tifl. pp. 296–297, HOPKINS Bull. zool. Nomen. **2.**

Stivalius pomerantzi p. 1, *ralius* p. 7 **spp. n.** Philippines; *robinsoni* aedeagus p. 11; *spiramus* Jord. a subsp.

of *cognatus* J. & R. p. 13 figs., Traub Proc. biol. Soc. Wash. **64.**

Thaumapsylla longiforceps **sp. n.** Philippines p. 15; *breviceps* characters p. 18 figs., Traub t.c.

Thrassis aridis, campestris see *Thrassoides.*

Thrassoides **gen. n.** for *Thrassis aridis* Prince (type), *T. campestris* P. p. 144 figs., Hubbard Fleas western N. America 1947.

Typhloceras poppei further description p. 464 figs., Colas-Belcour & Rageau Ann. Parasit. hum. comp. **26.**

Xenopsylla hirsuta **subsp. n.** *placidia* Cape Province p. 33, De Meillon & Hardy J. ent. Soc. sthn Afr. **14.**

HEMIPTERA.

Hemiptera of Afghanistan, China & Miller Videnskab. Medd. Dansk. naturh. Foren. **112** 1950 pp. 225–234, 3 figs.

Annotated list of Hemiptera in sour-cherry orchards in the Niagara Peninsula, Ontario, Phillips Canad. Ent. **83** pp. 194–205.

Heteroptera.

Aquatic and semi-aquatic Hemiptera of S.W. Arabia Expedition, Brown Exped. S.W. Arabia 1937–8 **1** pp. 221–273, 1 pl. 25 figs.

Aquatic and semi-aquatic Hemiptera of N. Florida (key p. 153), Herring Florida Ent. **33** pp. 145–150; **34** pp. 17–29, 146–161.

Semi-aquatic Heteroptera collected in N.E. Angola, 1946–49, Hoberlandt Publ. cult. Mus. Dundo no. 10 [preprint 1950], pp. 9–49, 164 figs.

Key to families of Heteroptera larvae of Germany, Jordan Zool. Anz. **147** pp. 24–31, 4 figs.

Heteroptera collected in Iran in 1942, Kirichenko Trud. zool. Inst. Akad. Nauk SSSR **8** 1949 pp. 878–887.

Types in Reuter's Palaearctic Heteroptera collection, Lindberg Comment. biol., Helsingf. **12** no. 14 pp. 1–34.

Heteroptera of Verona and their distribution in the world, Mancini Mem. Mus. Stor. nat. Verona **2** (1949–50) [? 1951] pp. 25–48.

Hemiptera Cryptocerata from Togo and Dahomey, Poisson Bull. Inst. franç. Afr. noire **13** pp. 1131–1140, 2 figs.

Some Heteroptera from Madagascar, Poisson Mém. Inst. sci. Madagascar **5A** pp. 79–130, 55 figs.

Aquatic and semi-aquatic Heteroptera of Denbighshire and Merionethshire (Wales), Popham Trans. Soc. Brit. Ent. **10** pp. 269–280.

Additions to list of Heteroptera of Netherlands, Reclaire Tijdschr. Ent. **93** pp. 1–24.

Annotated list of Heteroptera of the Marshall Is., Usinger Proc. Hawaii. ent. Soc. **14** pp. 315–321.

Heteroptera of W. Africa, Villiers Bull. Inst. franç. Afr. noire **13** pp. 326–342, 10 figs.

Heteroptera of Mauritania, Villiers Bull. Inst. franç. Afr. noire **15** pp. 129–138, 3 figs.

Heteroptera of Lower Saxony, Wagner Beitr. Naturk. Niedersachs. no. 3 1948 pp. 26–32.

Buchanan White types of Hawaiian Heteroptera, Zimmerman Proc. Hawaii. ent. Soc. **14** pp. 333–336.

Plataspidae (Coptosomatidae).

Plataspidae of Shansi, N. China, Esaki & Ishihara Mushi **22** pp. 31–32.

Cydnidae (Thyreocoridae).

Cydnidae of Shansi, N. China, Esaki & Ishihara Mushi **22** pp. 29–31.

Aethus (*Stilbocydnus* **subgen. n.**); (*S.*) *laevis* **sp. n.** Spanish Sahara p. 63 fig., Wagner Eos **27.**—*A. macrophthalmus* **sp. n.** Egypt p. 163 fig., Wagner Bull. Soc. Fouad Ier Ent. **35.**

Shansia **gen. n.**, *clavicornis* **sp. n.** N. China p. 31 figs., Esaki & Ishihara Mushi **22.**

Stilbocydnus **subgen. n.** (type *laevis* sp. n.) see *Aethus.*

PENTATOMIDAE, UROSTYLIDAE.

Correction to 1949 list of Cuban Pentatomids, BRUNER Mem. Soc. cubana Hist. nat. **20** p.75.

Pentatomidae of Shansi, N. China, ESAKI & ISHIHARA Mushi **22** pp. 32–43.

Urostylidae of Shansi, N. China, ESAKI & ISHIHARA Mushi **22** p. 43.

Adoxoplatys panamensis Panama p. 90, *brasiliensis* Brazil p. 91, *gallardoi* Argentina p. 93 **spp. n.** figs., KORMILEV Rev. Soc. ent. argent. **15.**

Afrius williamsi **sp. n.** Mauritius p. 183 figs., MILLER Bull. ent. Res. **42.**

Cermatulus turbotti **sp. n.** New Zealand p. 24 ; *nasalis* redescription p. 26 figs., WOODWARD Rec. Auckland Inst. Mus. **4** 1950.

Cylindrocnema plana further description p. 499 fig., KORMILEV Acta zool. lilloana **9** [preprint 1950].

Dybowskyia reticulata egg, larva p. 7 figs., KOBAYASHI Trans. Shikoku ent. Soc. **2.**

Eurydema genitalia of and key to French spp. pp. 13–26, distribution list p. 18 figs., DUPUIS Ann. Soc. ent. Fr. **118.**

Eurygaster integriceps egg p. 25 figs., MAKHOTIN Vriednaia tcherepachka (*Eurygaster integriceps*) **2** 1947.—*E. latus* **sp. n.** Iran p. 882, KIRICHENKO Trud. zool. Inst. akad. Nauk SSSR **8** 1949.—*E.* variation of spp. pp. 1–43 ; *maura* **var. n.** *punctata* ; *testudinaria* **var. n.** *punctulata* Germany ; *integriceps* **varr. n.** *conspersa* p. 39, *granulata* p. 40 Palestine ; *schreiberi* **varr. n.** *saulii* p. 39, *rufobrunnea*, *nigrofusca* p. 40, *discreta* p. 41 Trieste, *bimaculata* Hungary, *marginella* Albania p. 40 ; *dilaticollis* **varr. n.** *expansa* no locality p. 39, *decorata* Hungary, *straminea* S. Russia p. 41 ; *hottentotta* **varr. n.** *punctigera* Morocco, *rufa* Algiers ; *austriaca* **varr. n.** *calligera* p. 40, *extensa* p. 41 Austria, *purpurascens* Silesia p. 40, *ornata* Spain ; *nigra* Fieb., *signata* Fieb., *improvisa* Wagn. status discussed pp. 41, 42 figs., WAGNER Comment. biol., Helsingf. **12** no. 11.

Eysarcoris Hahn 1834 proposal to Int. Comm. zool. Nomen. to designate *aeneus* Scop. as type pp. 294–295, CHINA Bull. zool. Nomen. **2.**

Gonopsis affinis egg, larva p. 14 figs., KOBAYASHI Trans. Shikoku ent. Soc. **2.**

Graphosoma lineatum var. *italicum* morphological notes pp. 290–292 figs., BLÖTE Ent. Ber., Amst. **13.**—*G. italicum*, *lineatum* distinguishing characters p. 252, GRAVESTEIN Ent. Ber., Amst. **13.**

Halydicoris jeanneli **sp. n.** E. Africa p. 6, BERGROTH Notul. ent., Helsingfors **1** 1921.

Kayesia ifanensis **sp. n.** Fr. Guinea p. 338 fig., VILLIERS Bull. Inst. franç. Afr. noire **13.**

Kundelungua **gen. n.**, *leleupi* **sp. n.** Belg. Congo p. 295, SCHOUTEDEN Rev. Zool. Bot. afr. **44.**

Mecidea saharana, *lepineyi* distinguishing characters p. 67, WAGNER Eos **27.**

Pausias mateui **sp. n.** Spanish Sahara p. 65, WAGNER t.c.

Phimodera yasumatsui **sp. n.** N. China p. 34 figs., ESAKI & ISHIHARA Mushi **22.**

Ramosiana insignis Blanch., *lituata* Dallas (from *Vulsirea*) distinct spp. ; *militaris* Korm. status discussed p. 85 figs., KORMILEV Rev. Soc. ent. argent. **15.**

Rhopalimorpha lineolaris **sp. n.** New Zealand p. 32 fig., PENDERGRAST Rec. Auckland Inst. Mus. **4** 1950.

Rubiconia intermedia egg, larva p. 9 figs., KOBAYASHI Trans. Shikoku ent. Soc. **2.**

Scotinophara lamottei, *montana* (also Ivory Coast) **spp. n.** Fr. Guinea p. 340 figs., VILLIERS Bull. Inst. franç. Afr. noire **13.**

Thoria rotundata **sp. n.** Fr. Guinea p. 342 fig., VILLIERS t.c.

Thyanta custator F. (=*accera* McA.) p. 42, SAILER Proc. ent. Soc. Wash. **53.**

Tiphanoscora **gen. n.**, *yafoba* **sp. n.** Ivory Coast p. 339 fig., VILLIERS Bull. Inst. franç. Afr. noire **13.**

Vulsirea nigrorubra Spin. valid sp. not syn. of *violacea* F. p. 84, Kormilev Rev. Soc. ent. argent. **15**.—*V. insignis, liturata* see *Ramosiana*.

Willinerinia **gen. n.** p. 496, *decorata* **sp. n.** Argentina p. 497 fig., Kormilev Acta zool. lilloana **9** [preprint 1950].

Zicrona coerulea key to nymphal stages p. 133 figs., Balcells R. Publ. Inst. Biol. apl., Barcelona **8**; egg, larva p. 12 figs., Kobayashi Trans. Shikoku ent. Soc. **2**.

Coreidae.

Acantholybas brunneus adult, nymphs pp. 207–209 figs., Woodward Trans. roy. Soc. N.Z. **79**.

Coriomeris denticulatus nymph p. 172 fig., Southwood Ent. mon. Mag. **87**.—*C. alpinus* Horv. a good sp. and not ab. of *scabricornis* Pz., characters p. 183 figs., Wagner Mitt. schweiz. ent. Ges. **24**.

Homoeocerus pallens p. 252, *magnicornis* p. 253 early stages figs., Risbec Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Leptocorixa tipuloides, filiformis distinguishing characters p. 152 figs., Hussey Florida Ent. **33**.

Liorhyssus hyalinus early stages p. 249 figs., Risbec Trab. 2ª Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Stenocephalus berlandi **sp. n.** Mauritania p. 136 fig., Villiers Bull. Inst. franç. Afr. noire **13**.

Stictopleurus Italian spp. pp. 77–91; *punctatonervosus* **f. n.** *virescens*; *crassicornis* **f. n.** *immaculata* p. 77; *abutilon* subsp. *pictus* **f. n.** *pallida* p. 83; *riveti* **f. n.** *flaveola* p. 86 Italy figs., Tamanini Mem. Soc. ent. ital. **30**.

Aradidae, Dysodiidae.

Aradidae of Argentina, Kormilev Comun. Inst. Invest. Cienc. nat., B. Aires (Ci. zool.) **2** pp. 83–95, 1 map.

Aneurus micronesicus **sp. n.** Caroline & Palau Is. p. 83 figs., Esaki & Matsuda Mushi **22**.

Aradus cinnamomeus characters p. 285 fig., Leston Ent. mon. Mag. **87**.—*A. dissimilis, depressus* distinguishing characters 8 pp. figs., Tamanini Annu. Ist. Mus. Zool. Univ. Napoli **2** 1950 no. 4.

Artabanus lativentris **sp. n.** Caroline Is. p. 79 figs., Esaki & Matsuda Mushi **22**.

Calisius arakiai **sp. n.** Palau Is. p. 84 fig., Esaki & Matsuda t.c.

Chiastoplonia ponapensis **sp. n.** Caroline Is. p. 81 figs., Esaki & Matsuda t.c.

Mezira nanamaraki Caroline Is. p. 73, *angularis* Palau Is. p. 75, *micronesica* Caroline & Palau Is. p. 77 **spp. n.** figs., Esaki & Matsuda t.c.

Miorrhynchus longipes ♂ p. 501 fig., Kormilev Acta zool. lilloana **9** [preprint 1950].

Pictinus palauensis **sp. n.** Palau Is. p. 82 figs., Esaki & Matsuda Mushi **22**.

Lygaeidae (Myodochidae).

Key to nymphs of midwestern American Lygaeids, Slater Bull. Brooklyn ent. Soc. **46** pp. 42–48, 1 pl.

Artheneis Spin. 1837 proposal to Int. Comm. zool. Nomen. to designate *foveolata* Spin. as type p. 313, Usinger & Sailer Bull. zool. Nomen. **2**; Hemming pp. 315–317; China p. 318.

Barberia **gen. n.**, *risbeci* (type) Senegal p. 1054, *sudanensis* Sudan p. 1055 **spp. n.** figs., Miller Ann. Mag. nat. Hist. (12) **4**.

Blissus pulchellus ♀ p. 319; *brasiliensis* Brazil p. 320, *yumana* Arizona p. 321 **spp. n.** figs., Drake J. Wash. Acad. Sci. **41**.

Heterogaster revision of Italian spp. pp. 207–220 (keys p. 207); *urticae* all stages p. 173 figs., Servadei Redia **36**.

Ischnodemus sabuleti egg p. 255 figs., Leston Ent. Gaz. **2**.—*I. macer* macropterous ♂ p. 519, Slater Proc. Iowa Acad. Sci. **57** (1950) [? 1951].

Macroplax ornata **sp. n.** Turkestan p. 108 fig., Linnavuori Ann. ent. fenn. **17**.

Mendocina see *Neoblissus*.

Neoblissus Bergr. (=*Mendocina* Jens.–H.) p. 322; *weiseri* **sp. n.** Argentina p. 323, Drake J. Wash. Acad. Sci. **41**.

Nysius Dallas 1852 proposal to Int. Comm. zool. Nomen. to designate *thymi* Wolff as type p. 313, USINGER & SAILER Bull. zool. Nomen. **2**; HEMMING pp. 315–317; CHINA p. 318.

Oceanides arboricola White (=*parvulus* Us.); *usingeri* **sp. n.** Hawaii p. 333, ZIMMERMAN Proc. Hawaii. ent. Soc. **14.**

Scolopostethus pseudograndis **sp. n.** Germany p. 50 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [? 1950].

Stenophthalmicus panici **sp. n.** Egypt p. 137, PRIESNER Bull. Soc. Fouad ler Ent. **35.**

Taphropeltus characters p. 46; key to Centr. European spp. p. 48; *nervosus* **f. n.** *horvathi* Greece, Dalmatia p. 49 figs., WAGNER Nachr. naturw. Mus. Aschaffenburg Heft 31.

Trapezonotus key to Centr. European spp. p. 83; *desertus* **sp. n.** Germany p. 79 figs., SEIDENSTÜCKER Senckenbergiana **32.**

COLOBATHRISTIDAE.

Key to genn. of Neotropical Colobathristidae, KORMILEV Rev. brasil. Biol. **11** p. 82.

Carvalhoia **gen. n.** p. 67, *carioca* **sp. n.** Brazil p. 68 figs., KORMILEV Rev. brasil. Biol. **11.**

Colobasiastes proseri **sp. n.** Bolivia p. 337 fig., KORMILEV t.c.

Colobathristes facetus redescription p. 334, KORMILEV t.c.

Diascopoea carvalhoi **sp. n.** Brazil p. 78 figs., KORMILEV t.c.

Labradoria **gen. n.**, *bridarollii* **sp. n.** Bolivia p. 80 figs., KORMILEV t.c.

Neocolobathristes **gen. n.** p. 70, *bituberus* (type) p. 71, *longispinus* p. 73 **spp. n.** Brazil figs., KORMILEV t.c.

Phaenacantha (*Anorygma*) *saileri* **sp. n.** Guatemala p. 65 figs., KORMILEV t.c.

Trichocentrus guayanensis Br. Guiana p. 74, *amazonicus* Brazil p. 335 **spp. n.** figs., KORMILEV t.c.

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Dindymus maculipennis **sp. n.** Zanzibar p. 144, VILLIERS t.c.

Dysdercus fasciatus, nigrofasciatus, intermedius all stages p. 3 figs., BARBOSA Portugaliae Acta biol. **3** 1950.

Gromerius **gen. n.** p. 143, *ruficeps* **sp. n.** Cameroons p. 144 fig., VILLIERS Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Odontopus sexpunctatus early stages p. 248, RISBEC Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Scantius caraboïdes early stages p. 247 fig., RISBEC t.c.

Sericocoris cuneatus Moyen Congo p. 145, *sanguineus* Cameroons p. 146 **spp. n.** fig., VILLIERS t.c.

Sicnatus **gen. n.**, *leyei* **sp. n.** Dakar p. 18 fig., VILLIERS & DEKEYSER t.c.

TINGIDAE.

Tingoidea of New England, BAILEY Ent. amer. **31** pp. 1–140, 6 figs.

Arushia **gen. n.**, *horváthi* (type), *connata* **spp. n.** E. Africa p. 170, DRAKE Ann. hist.-nat. Mus. hung. (N.S.) **1.**

Campylosteira horváthi **sp. n.** E. Africa p. 171, DRAKE t.c.

Cantacader agilis **sp. n.** p. 166 (with **var. n.** *tricarinata* p. 167) New Guinea, DRAKE t.c.

Catoplatus flavipes **f. n.** *pallens* Czechoslovakia p. 40, DOBŠÍK Ent. Listy **13.**

Celantia teretis **sp. n.** India p. 174, DRAKE Ann. hist.-nat. Mus. hung. (N.S.) **1.**

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Corythucha caryae **sp. n.** U.S.A. p. 68 figs., BAILEY Ent. amer. **31.**

Lasiacantha sideris Kenya p. 175, *horváthi* E. Africa p. 176, *absimilis* Abyssinia p. 177 **spp. n.**, DRAKE Ann. hist.-nat. Mus. hung. (N.S.) **1.**

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Stephanitis globulifera compared with *pyrioides* & *rhododendri* p. 144, BAILEY Psyche **57.**—*S. yasumatsui* p. 58, *shirozui* p. 60 **spp. n.** Japan figs., TAKEYA Sci. Bull. Fac. Agric. Kyushu Univ. **13.**

Tingis (*Tropidochila*) *aegyptiaca* **sp. n.** Egypt p. 138 fig., PRIESNER Bull. Soc. Fouad Ier Ent. **35.**

REDUVIIDAE.

Revision of Argentine Triatominae, ABALOS & WYGODZINSKY Monogr. Inst. Med. reg. Tucuman no. 2, 178 [+3] pp. 318 figs.

Reduviidae of Texas, ELKINS Texas J. Sci. **3** pp. 407–412.

Distribution of Triatominae, LENT Rev. brasil. Biol. **11** p. 425.

Reduviids of Louisiana, SIBLEY Proc. La Acad. Sci. **14** pp. 88–93.

Key to Madagascan genera of Stenopoditae, VILLIERS Mém. Inst. sci. Madagascar **5A** pp. 141–142.

Key to American genn. of Etrichodiinae, WYGODZINSKY Rev. Soc. ent. argent. **15** p. 35.

Adra **gen. n.** p. 150, *beloti* **sp. n.** Belg. Congo p. 151, SCHOUTEDEN Rev. Zool. Bot. afr. **45.**

Amphibolus revision of African spp. pp. 71–73, key p. 71 ; *purpuratus* Tunisia, *imperialis*, *francoi* Algeria p. 72, *maroccanus* Morocco **spp. n.**; *rotroui* Bergev. from *Rhinocoris* p. 73, DISPONS Bull. Soc. ent. Fr. **56.** —*A. venator* Klug (=*Coranus tineapetens* Miller) p. 955, MILLER Ann. Mag. nat. Hist. (12) **4.**

Anacanthiocnemis kivuensis **sp. n.** Belg. Congo p. 151, SCHOUTEDEN Rev. Zool. Bot. afr. **45.**

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Argolis villiersi, *acuta* **spp. n.** Belg. Congo p. 155, SCHOUTEDEN Rev. Zool. Bot. afr. **45.**

Australocleptes **gen. n.** for *Reduvius debilis* Wlk. p. 945, redescription p. 946 figs., MILLER Ann. Mag. nat. Hist. (12) **4.**

Baebius katanganus **sp. n.** Belg. Congo p. 154, SCHOUTEDEN Rev. Zool. Bot. afr. **45.**—*B. seyrigi* **sp. n.** Madagascar p. 139, VILLIERS Mém. Inst. sci. Madagascar **5A.**

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Bolbodera trinidadensis **sp. n.** Trinidad p. 153 figs., LENT Rev. brasil. Biol. **11.**

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minor (also Bolivia) p. 51 Argentina figs., WYGODZINSKY Rev. Soc. ent. argent. **15.**

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Cricetopareis notes on distribution in S. America p. 37, WYGODZINSKY Rev. Soc. ent. argent. **15.**

Dinocleptes Stål (=*Zungeruia* Miller); *torpidus* ♂ p. 952 fig., MILLER Ann. Mag. nat. Hist. (12) **4.**

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Emesaya incisa ♀ neallotype p. 94, ELKINS Field & Lab. **19.**

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Mastigonomus joveri **sp. n.** Ivory Coast p. 326 fig., VILLIERS Bull. Inst. franç. Afr. noire **13.**

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Metapterus normae **sp. n.** Texas p. 90 fig., ELKINS Field & Lab. **19.**—*M.* revision of American and Juan Fernandez I. spp. pp. 113–128, key p. 114; *docilis*, *rosascostai* Argentina, *scaramuzzai* Cuba p. 123, *masatierrensis* p. 124, *kuscheli* p. 126 Chile **spp. n.** figs., WYGODZINSKY Rev. chil. Ent. **1.**

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Perissopygocoris **gen. n.**, *pallidus* **sp. n.** Centr. Australia p. 948 figs., MILLER Ann. Mag. nat. Hist. (12) **4.**

Phonoctonus lutescens larva p. 17 fig., VILLIERS & DEKEYSER Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Pirates barbarus **n. n.** for *lugubris* Miller nec Stål p. 955, MILLER Ann. Mag. nat. Hist. (12) **4.**

Ploearia djurdjurana **sp. n.** Algeria p. 169 figs., DISPONS Rev. franç. Ent. **18.**

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Pseudobargylia **gen. n.** for *Bargylia iuncea* Stål (type), *B. brunneri* Wygod. p. 610, WYGODZINSKY Ann. Mag. nat. Hist. (12) **4.**

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Staccia deheyni **sp. n.** Belg. Congo p. 151, SCHOUTEDEN Rev. Zool. Bot. afr. **45.**

Staliastes dubius Miller from *Sminthus* p. 955, MILLER Ann. Mag. nat. Hist. (12) **4.**

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Triatoma recurva Stål (=*longipes* Barber & subsp. *nigricollis* Usinger) redescription p. 156 figs., LENT Ciencia, México **11.**—*T. migrans* Bredd. (=*pallidula* Miller) p. 426; *amicitiae* **sp. n.** Australia p. 427 figs., LENT Rev. brasil. Biol. **11.**—*T. wygodzinskyi* **sp. n.** Brazil p. 349 figs., LENT Rev. Ent., Rio de J. **22.**

Velitra illustris Miller from *Sminthus* p. 955, MILLER Ann. Mag. nat. Hist. (12) **4.**—*V. vulnerans* see *Dyakocoris.*

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Phymatidae of Argentina, KORMILEV Rev. Inst. Invest. Cienc. nat., B. Aires (Ci. zool.) **2** pp. 45–110, 14 pls. 8 figs. 3 maps.

Lophoscutus **subgen. n.** (type *cimicoides* Swed.) see *Macrocephalus.*

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Phymatispa **subgen. n.** (type *fortificata* H. Sch.) see *Phymata.*

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Afrocimex **gen. n.**, *leleupi* **sp. n.** Belg. Congo p. 279, SCHOUTEDEN Rev. Zool. Bot. afr. **44.**

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Ectemnius nigriceps **sp. n.** Germany p. 1 figs., Wagner Acta ent. Mus. nat. Pragae **26** 1949 no. 364.

Piezostethus galactinus instars p. 51 figs., Hall Ent. mon. Mag. **87.**

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Neotropical Mirids, XL, XLI, Carvalho Ann. Mag. nat. Hist. (12) **4** pp. 168–173, 2 figs., 294–304, 4 figs.

Neotropical Mirids, XXXIX, Carvalho Comment. biol., Helsingf. **12** no. 7 pp. 1–6, 5 figs.

Neotropical Mirids, XLV, Carvalho Entomologist **84** pp. 232–233, **1** fig.

Neotropical Mirids, XLIV, Carvalho Ent. Medd. **26** pp. 130–136, 2 figs.

Nomenclature of Mirid tribes, Carvalho & China Entomologist **84** p. 113.

Female genitalia as taxonomic characters in Mirids, Slater Iowa St. Coll. J. Sci. **25** p. 355 [abstract of thesis].

Acetropis sinuata **sp. n.** Spanish Morocco p. 145, Wagner Bull. Soc. Fouad ler Ent. **35.**

Aetorrhinus brevicornis **sp. n.** Germany p. 90 figs., Wagner Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Argyrotelaenus elegans redescription p. 104 fig., Linnavuori Ann. ent. fenn. **17.**

Azizus basilewskyi **sp. n.** Belg. Congo p. 110 figs., Carvalho Rev. Zool. Bot. afr. **45.**

Aztecariella **gen. n.**, *iarae* **sp. n.** Mexico p. 232 fig., Carvalho Entomologist **84.**

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Brachyceraea ononidis **sp. n.** Italy, Morocco p. 24 fig., Wagner Comment. biol., Helsingf. **12** no. 6.

Bunsua **gen. n.** p. 105, *bryocoroides* Gold Coast p. 106, *congoana* Belg. Congo p. 107 **spp. n.** figs., Carvalho Rev. Zool. Bot. afr. **45.**

Calocoris saucius **sp. n.** Palestine, Algeria p. 104 figs., Linnavuori Ann. ent. fenn. **17.**

Camptobrochis serenus, *punctulatus* characters & abb. pp. 15–19; *p.* **f. n.** *nigriceps* Italy, Balkans, Morocco p. 18, Wagner Boll. Ass. romana Ent. **5.**

Canariocoris **gen. n.** for *Orthotylus antennalis* Reut. (type) p. 1; *hyperici* p. 4, *vollikoferiae* p. 6, *argyranthemi* p. 8, *euphorbiae* p. 11 **spp. n.** Canary Is. figs., Lindberg Comment. biol., Helsingf. **12** no. 9.

Capsodes robustus Dalmatia p. 130, (*Horistus*) *elongatus* Italy p. 132 **spp. n.** figs., Wagner Ent. NachrBl. öst. schweiz. Ent. **3.**

Capsus F. 1803 proposal to Int. Comm. zool. Nomen. to designate *ater* L. as type pp. 103–104, China Bull. zool. Nomen. **2**; Kéler p. 338.

Chinamiris **gen. n.** p. 9, *muehlenbeckiae* **sp. n.** New Zealand p. 10 figs., Woodward Rec. Auckland Inst. Mus. **4** 1950.

Chinamiris **gen. n.** for *Neofurius pallidulus* Dist. (type), *N. decoratus* Dist. p. 168 figs., Carvalho Ann. Mag. nat. Hist. (12) **4.**—*C.* see *Metafurius.*

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Cyrtorhinus revised classification of Pacific Is. spp. pp. 1–5; (*Reuteriessa* **subgen. n.**); *vitiensis* **sp. n.** Fiji p. 3 figs., Usinger Comment. biol., Helsingf. **12** no. 8.—*C. cumberi* **sp. n.** New Zealand p. 16 fig., Woodward Rec. Auckland Inst. Mus. **4** 1950.

Deraeocoris Kirsch. (=*Cimatlan* Dist.) p. 132, Carvalho Ent. Medd. **26.**—*D. maoricus* **sp. n.** New Zealand p. 12, Woodward Rec. Auckland Inst. Mus. **4** 1950.

Dichroocoris malaisei **sp. n.** Mexico p. 301 fig., Carvalho Ann. Mag. nat. Hist. (12) **4.**

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Druthmarus congolensis **sp. n.** Benza Mazola p. 104 figs., CARVALHO Rev. Zool. Bot. afr. **45.**

Eccritotarsus similaris **sp. n.** Guatemala p. 172, CARVALHO Ann. Mag. nat. Hist. (12) **4.**—*E.* complex check list of spp. p. 675, key p. 677, CARVALHO & CHINA Ann. Mag. nat. Hist (12) **4.**—*E. nigroplagiatus* see *Tenthecoris*; *vultuosus*, *mundula* see *Pachypoda*; *discifer* see *Parafurius.*

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Engytatus nicotianae redescription p. 14, WOODWARD Rec. Auckland Inst. Mus. **4** 1950.

Exolygus **subgen. n.** (type *pratensis* L.) see *Lygus.*

Guarania **gen. n.** p. 113, *myrmecomorpha* **sp. n.** Uruguay p. 116 figs., CARVALHO & CHINA Entomologist **84.**

Habrocoris **gen. n.**, *breviceps* **sp. n.** Egypt p. 153 fig., WAGNER Bull. Soc. Fouad ler Ent. **35.**

Halticus major **sp. n.** Bavaria, Italy, Finland p. 70; key to spp. p. 73 figs., WAGNER Nachr. naturw. Mus. Aschaffenburg Heft 33.—*H. tibialis* redescription p. 20, WOODWARD Rec. Auckland Inst. Mus. **4** 1950.

Idolocoris stotti ♂ p. 23, WAGNER Comment. biol., Helsingf. **12** no. 6.

Knightocoris **gen. n.** for *Neofurius villosus* Dist. p. 686 fig., CARVALHO & CHINA Ann. Mag. nat. Hist. (12) **4.**

Kunungua **gen. n.** p. 107, *boxi* Gold Coast p. 108, *cinnamomea* Kunungu p. 109 **spp. n.** figs., CARVALHO Rev. Zool. Bot. afr. **45.**

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Lygus Finnish spp. of *pratensis* group p. 56, LINNAVUORI Ann. ent. fenn. **17.**—*L. basalis* Costa valid not synonym of *kalmi* L. p. 2 (with **ff. n.** *intermedia* p. 6, *testacea* p. 8); *campestris* **ff. n.** *trimaculata* p. 10, *reuteri* p. 15 Italy figs., TAMANINI Annu. Ist. Mus. Zool. Univ. Napoli **3** no. 4.—*L.* revision of German spp. pp. 26–40; male genitalia p. 27; status of subgenn. p. 32; (*Exolygus* **subgen. n.** p. 33); (*Agnocoris*) *reclairei* **sp. n.** (also Holland) p. 34 (with **var. n.** *collaris* p. 36) Germany, Austria; (*E.*) *gemellatus* **subsp. n.** *maritima* Amrum p. 37; systematic list of spp. p. 39; key to subgenn. p. 40 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950].

Macrolophus caliginosus **sp. n.** Italy p. 29 figs., WAGNER Boll. Ass. romana Ent. **5.**

Macrotylus interpositus **n. n.** for *intermedius* Wagn. nec Van D. p. 61, WAGNER Nachr. naturw. Mus. Aschaffenburg Heft 31.

Mesodicyphus **subgen. n.** (type *testaceus* Reut.) see *Dicyphus.*

Metafurius **n. n.** for *Chinamiris* Carv. nec Woodw. p. 677 (note), CARVALHO & CHINA Ann. Mag. nat. Hist. (12) **4.**

Millerimiris **gen. n.** p. 103, *punctatus* **sp. n.** Belg. Congo p. 104 figs., CARVALHO Rev. Zool. Bot. afr. **45.**

Myombea **gen. n.** p. 1120, *bathycephala* **sp. n.** Tanganyika p. 1121 fig., CHINA & CARVALHO Ann. Mag. nat. Hist. (12) **4.**

Neofurius Dist. valid gen. (type *affinis* Dist.) p. 674 (=*Bibaculus* Dist.) p. 695; *sororia* Dist., *viduatus* Dist. p. 696, *pulchrus* Dist. p. 697 from *Neosilia*, CARVALHO & CHINA t.c.—*N. ornandus* see *Odontocerocoris*; *denigratus*, *hieroglyphicus* see *Nototremates*; *villosus* see *Knightocoris*; *auratus*, *pollutus* see *Parafurius*; *marginatus* (*distanti*) see *Emboliocoris*; *pallidulus*, *decoratus* see *Chinamiris.*

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Nicostratus minor Borneo p. 1122, *luteus* Siamese Malay States p. 1124 **spp. n.**; *princeps* Dist. (=*monomoriiformis* Ballard); key to spp. p. 1125 figs., China & Carvalho Ann. Mag. nat. Hist. (12) **4.**

Nototremates **gen. n.** for *Neofurius denigratus* Dist. (type), *N. hieroglyphicus* Dist. p. 680 fig., Carvalho & China t.c.

Odontocerocoris **gen. n.** for *Neofurius ornandus* Dist. p. 678 fig., Carvalho & China t.c.

Orthotylus retamae p. 141, (*Halocapsus*) *hirtulus* p. 157 **spp. n.** Egypt figs., Wagner Bull. Soc. Fouad Ier Ent. **35.**—*O. antennalis* see *Canariocoris*.

Pachypoda **gen. n.** for *Eccritotarsus vultuosus* Dist. (type), *E. mundula* Stål p. 688; *guatemalensis* Guatemala p. 690, *sordida* La Palma p. 691 **spp. n.** figs., Carvalho & China Ann. Mag. nat. Hist. (12) **4.**

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Parafurius **gen. n.** for *Eccritotarsus discifer* Stål (type), *Neofurius auratus* Dist., *N. pollutus* Dist. p. 692 fig., Carvalho & China Ann. Mag. nat. Hist. (12) **4.**

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Platycranus michalki p. 363, *hartigi* p. 364 **spp. n.** Italy; *erberi* further description p. 365; key to spp. p. 366 figs., Wagner Ent. Ber., Amst. **13.**

Platyscytus rufomaculatus **sp. n.** Brazil p. 4, Carvalho Comment. biol., Helsingf. **12** no. 7.

Poeciloscytus microphthalmus **sp. n.** Germany, Styria, Hungary, Italy, Belgium p. 1; *palustris* Reitt. p. 3 (with **f. n.** *centralis* Germany, Bohemia, Ireland p. 4), *unifasciatus* F. (with **f. n.** *disjuncta* Germany) p. 5, *brevicornis* Reut., *asperulae* Fieb. p. 6 redescriptions; key to European spp. p. 7 figs., Wagner Acta ent. Mus. nat. Pragae **25** 1948 no. 351.

Poliopterus **subgen. n.** (type *albipennis* Fall.) see *Plagiognathus*.

Prodromus melanonotus **sp. n.** Gold Coast, Cameroons, Belg. Congo p. 109 figs., Carvalho Rev. Zool. Bot. afr. **45.**—*P. joveri* Ivory Coast, *nimbus* Senegal **spp. n.** p. 151 fig., Delattre Bull. Soc. ent. Fr. **55.**

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Schoutedenomiris **gen. n.** p. 100, *acutotylus* **sp. n.** Belg. Congo p. 101 figs., Carvalho Rev. Zool. Bot. afr. **45.**

Setocoris **gen. n.** p. 221, *bybliphilus* **sp. n.** W. Australia p. 222 figs., China & Carvalho Ann. Mag. nat. Hist. (12) **4.**

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p. 295) characters; *orchidearum* Reut. a valid sp., characters p. 296; *nigroplagiatus* Stål from *Eccritotarsus* p. 297 figs., CARVALHO Ann. Mag. nat. Hist. (12) **4.**—*T. figueiredoi* nymph, adult p. 250 figs., DE FIGUEIREDO Arq. Inst. biol., S. Paulo **20.**

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Ochterus banksi all stages p. 93 figs., BOBB Bull. Brooklyn ent. Soc. **46.**

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Saldula jihafana **sp. n.** Aden p. 241 fig., BROWN Exped. S.W. Arabia 1937–8 **1.**—*S. azteca* p. 177, *ourayi* p. 179 **spp. n.** U.S.A., DRAKE & HOTTES Proc. biol. Soc. Wash. **62** 1949.—*S. subsolans* Java p. 177, *guamensis* Guam p. 178, *scitula* Brazil p. 179 **spp. n.**; *dixoni* Dist. (= *Acanthia balnearum* Bergr.) p. 177, DRAKE & HOTTES op. cit. **63** 1950.—*S. verdica* **sp. n.** Brazil p. 380 fig., DRAKE & HOTTES Rev. Ent., Rio de J. **22.**—*S. suttoni* **sp. n.** Mexico p. 1, DRAKE & HUSSEY Occ. Pap. Mus. Zool. Univ. Michigan no. 536.—*S.* characters of *pallipes* group pp. 1–3; *palustris* **var. n.** *browni* Europe p. 3; *litoralis* abnormal wing p. 4 figs., WAGNER Acta ent. Mus. nat. Pragae **26** 1950 no. 371.—*S.* key to Hawaiian spp.; *humifera* Kirk. not a synonym of *oahuensis* Blkb. p. 336, ZIMMERMAN Proc. Hawaii. ent. Soc. **14.**

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Fulgoroidea of Fiji, Fennah Bull. Bishop Mus. no. 202 1950 122 pp. 1 map 49 figs.

Homoptera of Parc nat. Albert, Lallemand & Synave Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77 pp. 8–29, 9 figs.

List of Homoptera from some N. Estonian Is., Ossiannilsson Opusc. ent., Lund **16** pp. 10–14.

Catalogue of Belgian Fulgoroidea, Synave Bull. Ann. Soc. ent. Belg. **87** pp. 136–140.

Homoptera of Lower Saxony, Wagner Beitr. Naturk. Niedersachs. no. 4 1948 pp. 18–25.

List of Homoptera of Lower Franconia, Wagner Nachr. naturw. Mus. Aschaffenburg Heft 33 pp. 1–54.

Cicadidae.

Cicadids of Peru, Jacobi Beitr. Fn Perus Bd. 1 1941 pp. 93–96, 1 fig. [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 pp. 89–92, 1 fig.].

Carineta titschacki **sp. n.** Peru p. 91 fig., Jacobi Beitr. Fn Perus Bd. 1 1941 [all but 6 copies destroyed in the War; re-issued in 1951 as Bd. 2 p. 94].

Cicadetta Belgian sp. p. 185, Synave Bull. Ann. Soc. ent. Belg. **87.**

Melampsalta New Zealand spp. pp. 123–150; *ochrina* Wlk. (=*aprilina* Huds.) p. 135; *exulis* **sp. n.** New Zealand p. 137 figs., Hudson Fragm. N.Z. Ent. [1951].

Meenopliidae.

Nisia atrovenosa **var. n.** *levuana* Fiji p. 47, Fennah Bull. Bishop Mus. no. 202 1950.

Suva cretacea, *fuscomarginata* **spp. n.** Fiji p. 47 fig., Fennah t.c.

Fulgoridae.

Fulgora L. 1767 proposal to Int. Comm. zool. Nomen. to designate *laternaria* L. as type pp. 34–37, Fennah Bull. zool. Nomen. **6**; Hemming pp. 37–44.

Metaphaena ocellata **sp. n.** Belg. Congo p. 18 figs., Lallemand & Synave Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77.

Derbidae.

Flaccia bicornis p. 51, *pyrrhoneura* p. 52, *tumidifrons* p. 53, *oediceras* p. 54 **spp. n.** Fiji figs., Fennah Bull. Bishop Mus. no. 202 1950.

Harpanor **gen. n.** p. 58, *fuligo* **sp. n.** Fiji p. 59 fig., Fennah t.c.

Kamendaka nigropersa, *rubrinervis* **spp. n.** Fiji p. 60 fig., Fennah t.c.

Nesocore subfulva, *clitoria* p. 63, *pygmaea* p. 64, *candida*, *nivea* p. 65, *elutriata* p. 66, *purpurigena* p. 67 **spp. n.** Fiji figs., Fennah t.c.

Paralyricen astyanax p. 55, *sphaeromma* p. 56, *vespillo* p. 57, *similis* p. 58 **spp. n.** Fiji figs., Fennah t.c.

Phaciocephalus troas p. 71, *marpsias* p. 72 **spp. n.** Fiji figs., Fennah t.c

Pyrrhoneura charonea p. 61, *poecila* p. 62 **spp. n.** Fiji figs., Fennah t.c.

Sikaiana flammeivittata **sp. n.** Fiji p. 49 fig., Fennah t.c.

Achilidae.

Cixidia confinis larva p. 62 fig., Linnavuori Ann. ent. fenn. **17.**

Eurynomeus argo **sp. n.** Fiji p. 77 fig., Fennah Bull. Bishop Mus. no. 202 1950.

Helicoptera lapponica larva p. 62 fig., LINNAVUORI Ann. ent. fenn. **17.**

DELPHACIDAE (ARAEOPIDAE).

Calligypona dubia Kirschb. (=*pargasensis* Reut.); *litoralis* Reut. a good sp. p. 61 fig., LINNAVUORI Ann. ent. fenn. **17.**—*C. leptosoma* Fl. (=*niveimarginata* Scott, *lucticolor* Sahlb.) characters; *albofimbriata* Fieb. 1866 author not Curtis p. 109, ♂ p. 110 figs., LINNAVUORI t.c.

Criomorphus (*Stiroma*) *obliquus* **sp. n.** Austria p. 75 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Delphacodes megadonta Kansas p. 11, *nigrinota* Texas, Mexico **spp. n.**; *atrata* p. 12, *dolera* p. 13, *acuministyla* p. 15 genitalia figs., BEAMER J. Kans. ent. Soc. **24.**

Dicranotropis ucalegon **sp. n.** Fiji p. 43, FENNAH Bull. Bishop Mus. no. 202 1950.

Embolophora Stål (=*Liburnia* S.) p. 42, FENNAH t.c.

Euidella alpina **sp. n.** Austria p. 72; *speciosa* characters p. 74 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Kelisia revision of American spp. N. of Mexico (key p. 117) pp. 117–121; *torquata* p. 118, *parvicurvata*, *flava* p. 120, *vesiculata* p. 121 **spp. n.** U.S.A., BEAMER J. Kans. ent. Soc. **24.**

Liburnia see *Embolophora*.

Pareuidella **gen. n.**, *spatulata* (type) p. 198, *avicephaliforma* p. 200 **spp. n.** U.S.A., BEAMER Ann. ent. Soc. Amer. **44.**

Ugyopana **gen. n.** p. 40, *cassia* **sp. n.** Fiji p. 41 fig., FENNAH Bull. Bishop Mus. no. 202 1950.

Ugyops demeter p. 35 (with **subspp. n.** *laticauda*, *angusticauda* p. 36) *zimmermani*, *astrolabei*, *lauі* p. 37, *necopinus* p. 38, *bianor* p. 39 **spp. n.** Fiji figs., FENNAH t.c.

CIXIIDAE.

Australoma baumanensis, *wilkesi* see *Epaustraloma*.

Cixius nervosus L. (=*basalis* Van D.) p. 315; *quebecensis* **n. n.** for *fulvus* Beirne nec Wlk. p. 316, BEIRNE Canad. Ent. **83.**

Dystheatias aeneas p. 25, *smaragdus*, *nigricosta* p. 26, *ensicauda* p. 27, *lacon* p. 28, *cleon* p. 29, *clymene* p. 30 **spp. n.** Fiji figs., FENNAH Bull. Bishop Mus. no. 202 1950.

Epaustraloma **gen. n.**, *simois* (type) **sp. n.** Fiji p. 17; *baumanensis* Muir, *wilkesi* M. from *Australoma* p. 18, FENNAH t.c.

Haplaxius perrinei **sp. n.** U.S.A. p. 34, CALDWELL Ohio J. Sci. **51.**—*H. gabrielensis* **sp. n.** California p. 169, FLOCK Pan-Pacif. Ent. **27.**

Myndus xanthus p. 20, *personatus* p. 21, *pica* p. 22, *antenor*, *ulysses* p. 23 **spp. n.** Fiji, FENNAH Bull. Bishop Mus. no. 202 1950.

Neocixius Wagn. raised to gen. and not subgen. of *Cixius* p. 85; *michalki* **sp. n.** Austria p. 86 figs., WAGNER Verh. Ver. naturw. Heimatsforsch Hamburg **29** 1948.

Nesochlamys kalypso **subsp. n.** *insulicola* Fiji p. 31, FENNAH Bull. Bishop Mus. no. 202 1950.

Oliarus sablensis p. 34, *gladensis*, *altanatus*, *bazarus* **spp. n.** U.S.A.; *nanatus* **n. n.** for *nanus* Cald. nec Ivan. p. 35, CALDWELL Ohio J. Sci. **51.**

Tachycixius Wagn. raised to gen. and not subgen. of *Cixius* p. 85, WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

TROPIDUCHIDAE.

Macrovanua **gen. n.** for *Vanua angusta* Muir (type), *demissa* Fenn. p. 88, FENNAH Bull. Bishop Mus. no. 202 1950.

Rhinodictya paeminosa, *cuneolus*, *belone* **spp. n.** Fiji p. 86 figs., FENNAH t.c.

Vanua respicienda **subspp. n.** *serrata* p. 80, *flagellata*, *hastata* Fiji; *paphia* p. 81 (with **subsp. n.** *bicuspidata*), *deiopeia* p. 82, *sambucina*, *deidamia* p. 83, *pleone* (with **subsp. n.** *obliqua*) p. 84, *taygete* p. 85 **spp. n.** Fiji figs., FENNAH t.c.—*V. angusta*, *demissa* see *Macrovanua*.

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Capelopterum phormio p. 89, *lyco*, *dolabra* p. 90, *tanaquil* p. 91, *vacuna*, *zetes* p. 92, *ranula*, *betulus* p. 93

spp. n. Fiji figs., FENNAH Bull. Bishop Mus. no. 202 1950.

Lollius pyrrhoceras **sp. n.** Fiji p. 96 fig., FENNAH t.c.

Sarima erythrocyclos **sp. n.** Fiji p. 96 fig., FENNAH t.c.

Tylana (*Atylana*) *carcinias* **sp. n.** Fiji p. 94 fig., FENNAH t.c.

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Euricania key to Fijian spp. p. 110 ; *laetoria, licinia, procilla* p. 112, *cyane, dinon, furina, cliduchus* p. 113, *progne, camilla* (with **subsp. n.** *kandavuana*), *moneta* p. 114, *opora, sirenia, sterope* p. 115 **spp. n.** Fiji figs., FENNAH Bull. Bishop Mus. no. 202 1950.

Plestia key to Fijian spp. p. 97 ; *circe* p. 98, *cassiopeia, artemis, naias* p. 100, *thetis, io* p. 101, *medusa, nereis* p. 102, *danae, deianira* p. 103, *arethusa, iphigeneia* p. 104, *antigone, calypso* p. 105, *cassandra* p. 106, *andromeda, eurydice* p. 107, *galatea* p. 108 (with **subsp. n.** *levuana*), *scylla, niobe* p. 109 **spp. n.** Fiji figs., FENNAH t.c.

Ricania lukuluensis **sp. n.** Belg. Congo p. 21 figs., LALLEMAND & SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77.

FLATIDAE.

Paroxychara **gen. n.** p. 24, *capeneri* **sp. n.** S. Africa p. 27 figs., LALLEMAND & SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77.

Pseudophantia **gen. n.** p. 28, *rwindiensis* (type), *straeleni* **spp. n.** Belg. Congo p. 29 figs., LALLEMAND & SYNAVE t.c.

CERCOPIDAE.

Catalogue of Belgian Cercopids, SYNAVE Bull. Ann. Soc. ent. Belg. **87** pp. 182–184.

Aeneolamia jugata Fowl. (from *Tomaspis*) a subsp. of *postica* Wlk. p. 137 ; *p.* **subsp. n.** *campecheana* Guatemala p. 138 ; *varia* **subspp. n.** *lugens* p. 141, *deusta* p. 142 Venezuela figs., FENNAH Ann. Mag. nat. Hist. (12) **4.**

Aphromachaerota **gen. n.**, *adusta* **sp. n.** China p. 84, LALLEMAND Bull. Ann. Soc. ent. Belg. **87.**

Aphrophora Germ. (=*Trigophora* Mats.) type *alni* Fall. not *corticea* Germ. p. 279, CHINA Ent. mon. Mag. **87.**

Carystus reticulatus see *Neurohindola.*

Cercopis F. 1775 proposal to Int. Comm. zool. Nomen. to validate with *sanguinolenta* Scop. as type pp. 301–304, WAGNER Bull. zool. Nomen. **2.**— *C. sanguinea* **var. n.** *nicolausi* Germany p. 76 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Conmachaerota bakeri Philippines p. 82, *carinata* Sumatra p. 83 **spp. n.**, LALLEMAND Bull. Ann. Soc. ent. Belg. **87.**

Hyboscarta caduca **sp. n.** Venezuela p. 145 figs., FENNAH Ann. Mag. nat. Hist. (12) **4.**

Ischnorhina partita see *Laccogrypota inca.*

Laccogrypota grandis Dist. (=*Tomaspis laqueus* Bred.) p. 196 ; *inca* Schm. (=*Ischnorhina partita* Jac.) p. 197, NAST Ann. Mus. zool. polon. **14.**

Liorhinella nigra Hag., *elephas* Schm. distinct spp. p. 193 figs., NAST t.c.

Locris daltoni Dist. (=*pulverosula* Lall.) from *Triecphora* p. 197, NAST t.c.

Maconaima lucifer Jac. (=*circumducta* Dist.) from *Tomaspis* p. 197, NAST t.c.

Marcion **gen. n.** for *Tomaspis equestris* Leth. p. 147 figs., FENNAH Ann. Mag. nat. Hist. (12) **4.**

Maxantonia scindens Wlk. (=*cantatrix* Schm.) from *Sphenorhina* p. 197, NAST Ann. Mus. zool. polon. **14.**

Metahindola **gen. n.**, *tamangana* **sp. n.** Pahang p. 87, LALLEMAND Bull. Ann. Soc. ent. Belg. **87.**

Neurohindola **gen. n.** for *Carystus reticulatus* Spang. p. 87, LALLEMAND t.c.

Pachacanthocnemis bella Wlk. (=*simillima* Schm.) p. 197, NAST Ann. Mus. zool. polon. **14.**

Parahindola pahangana **sp. n.** Pahang p. 86, LALLEMAND Bull. Ann. Soc. ent. Belg. **87.**

Parahindoloides **gen. n.** p. 88, *lumuana* **sp. n.** Borneo p. 89, LALLEMAND t.c.

Philaenus spumarius variation pp. 34–37 fig., FARSKÝ Acta Soc. ent. Čsl. **48.**

Phymatostetha perspicillaris key to subspp. p. 2; *p.* **subspp. n.** *extensa, variegata* p. 3, *sibuyana*; *p. dapitana* **f. n.** *minuta* Philippines; *infuscata* Sumatra p. 4, *laosensis* Laos p. 5 **spp. n.**, LALLEMAND Comment. biol., Helsingf. **12** no. 12.

Phytozamia conspicua Dist. (= *Sphenorhina modesta* Lall.) from *Sphenorhina* p. 198, NAST Ann. Mus. zool. polon. **14.**

Ptyelus Lep. & Serv. discussion on Matsumura's recent nomenclature p. 279, CHINA Ent. mon. Mag. **87.**—*P. niger* **var. n.** *flavomaculatus* Belg. Congo p. 13, LALLEMAND & SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77.

Sphenorhina scindens see *Maxantonia*; *conspicua* see *Phytozamia*; *modesta* see *P. conspicua.*

Tomaspis jugata see *Aeneolamia postica jugata*; *equestris* see *Marcion*; *laqueus* see *Laccogrypota grandis*; *lucifer* see *Maconaima.*

Tomaspisinella araguana **sp. n.** Venezuela p. 143 fig., FENNAH Ann. Mag. nat. Hist. (12) **4.**

Trichophyes **gen. n.**, *batangana* **sp. n.** Perak p. 85, LALLEMAND Bull. Ann. Soc. ent. Belg. **87.**

Triecphora daltoni see *Locris.*

Trigophora see *Aphrophora.*

MEMBRACIDAE.

List of Wisconsin Membracids, DENNIS Canad. Ent. **83** pp. 183–184.

Catalogue of Membracids of Belgium, SYNAVE Bull. Ann. Soc. ent. Belg. **87** pp. 184–185.

Centrotus hobohmi S.W. Africa p. 152, *mossopi* S. Rhodesia p. 155 **spp. n.** figs., CAPENER J. ent. Soc. sthn Afr. **14.**

Cyrtolobus griseus ♂ allotype p. 106, DENNIS Canad. Ent. **83.**

Eumonocentrus risbeci **sp. n.** Senegal p. 183 fig., PAULIAN Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Otinotus biformatus **sp. n.** Zululand p. 157 figs., CAPENER J. ent. Soc. sthn Afr. **14.**

Platybelus brunneus Funk. description and emended figs. p. 152; *mutabilis* p. 158, *sericeus* p. 160 **spp. n.** S.W. Africa figs., CAPENER t.c.

Xiphistes biformis **sp. n.** Natal p. 161 figs., CAPENER t.c.

JASSIDAE (CICADELLIDAE).

Morphology and list of Spanish Typhlocybids, BASSO Y LACHA Bol. Soc. esp. Hist. nat. **46** 1949 pp. 685–697, 10 figs.

Check list of Cicadellidae of America, north of Mexico, DELONG & KNULL Graduate Sch. Stud. Ohio Univ. Biol. Sci. Ser. no. 1 1945 102 pp.

Value of ovipositor in classification of Cicadellids, DULZETTO Boll. Accad. Gioenia **3** 1941 no. 7 pp. 51–54.

Classification of leafhoppers with special reference to Nearctic fauna, EVANS Comment. biol., Helsingf. **12** no. 3 pp. 1–11.

Additions to Osborn & Knull's list of Ohio Cicadellidae, KNULL Ohio J. Sci. **51** p. 16.

Monograph of Cicadellinae, V, MELICHAR Ann. hist.-nat. Mus. hung. (N.S.) **1** pp. 72–112.

Phylogeny and systematics of Jassids of N. & Centr. Europe, WAGNER Comment. biol., Helsingf. **12** no. 2 pp. 1–44, 27 figs.

Acocephalus sudeticus Kol. (= *Deltocephalus penthopittus* Fieb.) p. 77, WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Aglena Am. & Serv. correct position in Euscelinae, Euscelini p. 195 figs., NAST Ann. Mus. zool. polon. **14.**

Alconeura languida p. 57, *separata* p. 58, *rubranota* p. 59, *cinctella* p. 60, *rubella* p. 61, *similis* p. 62 **spp. n.** Mexico figs., DELONG & RUPPEL Bull. Brooklyn ent. Soc. **46.**—*A. splendida* **sp. n.** California p. 169 figs., KNULL Ohio J. Sci. **51.**

Aligia riscoana **sp. n.** Arizona p. 175 figs., KNULL t.c.

Athysanella kadokana **sp. n.** S. Dakota p. 180 figs., KNULL t.c.

Athysanus pellucidus see *Tetartostylus.*

Ballana diversa **sp. n.** Arizona p. 174 figs., KNULL Ohio J. Sci. **51.**

Bythoscopus verticis see *Oncopsis.*

Cercopis tuberculicollis see *Proconia.*

Cicadella cordoba, (*Scinda* **subgen. n.**) *scarlatina* p. 95, *circula, cochlea* p. 96 **spp. n.** U.S.A. figs., DELONG & RUPPEL Ohio J. Sci. **51.**

Cloanthanus dubius Van D. from *Platymetopius* p. 33, DELONG & KNULL Graduate Sch. Stud. Ohio Univ. Biol. Sci. Ser. no. 1 1945.

Cochlorhinus niger Ball from *Drionia* p. 28, DELONG & KNULL t.c.—*C. atratus* **sp. n.** California p. 174 figs., KNULL Ohio J. Sci. **51.**

Deltocephalus penthopittus see *Acocephalus sudeticus.*

Dicraneura citrinella **subsp. n.** *major* Austria p. 78 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Drionia niger see *Cochlorhinus.*

Empoasca decedens early stages p. 57, DULZETTO Boll. Accad. Gioenia **3** 1941 no. 7.—*E. mira* **sp. n.** Texas p. 169 fig., KNULL Ohio J. Sci. **51.**—*E. lindbergi* **sp. n.** Finland p. 60 fig., LINNAVUORI Ann. ent. fenn. **17.**

Erythroneura idonea Beam. (=*gargantua* Johns.) p. 78; *munda* Kn. & Aut. (=*modula* K. & A.) p. 80, DELONG & KNULL Graduate Sch. Stud. Ohio Univ. Biol. Sci. Ser. no. 1 1945.—*E. fiduciaria, maga* p. 170, *fausta, tersa, spinea* p. 172, *cristata* p. 174, **spp. n.** U.S.A.; *cauta* Beam. (=*alternata* Johns.) p. 178 figs., KNULL Ohio J. Sci. **51.**—*E. ampla, enata, freta* p. 179, *tolerata* p. 180 **spp. n.** Ohio figs., KNULL t.c.

Euscelis and related genn. of Norway pp. 77–94 figs., HOLGERSEN Nytt Mag. Naturv. **87** 1949.—*E. singeri* **sp. n.** Germany p. 56 figs., WAGNER Nachr. naturw. Mus. Aschaffenburg Heft 33.

Exitianus additions to list of Old World spp. p. 196, NAST Ann. Mus. zool. polon. **14.**

Flexamia miranda **sp. n.** Arizona p. 177 figs., KNULL Ohio J. Sci. **51.**

Hebenarus catalinus Ball from *Scaphoideus* p. 34, DELONG & KNULL Graduate Sch. Stud. Ohio Univ. Biol. Sci. Ser. no. 1 1945.

Kunzeana popae (with **var. n.** *jacintae* p. 188) p. 187, *acaciae* p. 188, *tessellata, versicolora* p. 190, *semiluna* p. 191 **spp. n.** Mexico figs., RUPPEL & DELONG Ohio J. Sci. **51.**

Laevicephalus paulus, canyonensis, obvius p. 176, *vafer* p. 182 **spp. n.** Arizona figs., KNULL t.c.

Macrosteles apodemes of 2nd. abdominal sternum of males as specific character pp. 109–111 figs., OSSIANNILSSON Opusc. ent., Lund **16.**—*M. binotatus* ♂ redescribed p. 58 figs., LINNAVUORI Ann. ent. fenn. **17.**

Microgoniella Melichar 1926 *pudica* F. (type), *sociata* Fowl., *carbuncula* Bredd., *lepida* Sign., *xanthogramma* Sign., *rhinetta* Sign., *illustris* Sign., *rubricauda* Sign., *flavolineata* Sign., *curvovittata* Stål, *flavomaculata* Blanch., *nigrovittata* Blanch. from *Tettigonia*; *cornelia* Dist., *quadrigula* Jac., *scapula* Jac., *sertigerula* Jac., *azeka* Dist. from *Tettigoniella*; key to Centr. and S. American spp. p. 93; *vagans* p. 96, *indignata* p. 98 Costa Rica, *bilineata, cinctella* p. 97, *elegans, obstinatula* (also Bolivia) p. 101, *dilutula* p. 103, *striatella* p. 105 Peru, *comperta* p. 97, *flavoapicata* p. 106 Brazil, *monacha, delicatula* p. 99, *comitatula* p. 100, *suturalis* p. 110 Colombia, *dorsigutta* Bolivia p. 102, (*Microscita* **subgen. n.**) (*M.*) *naevula* p. 110, (*M.*) *ornatula* Colombia, (*M.*) *dorsisignata,* (*M.*) *morio* Peru p. 111 **spp. n.,** MELICHAR Ann. hist.-nat. Mus. hung. (N.S.) **1.**

Microscita **subgen. n.** see *Microgoniella.*

Mocuellus perdignus **sp. n.** California p. 175 figs., KNULL Ohio J. Sci. **51.**

Oncopsis taxonomic notes on Canadian spp. (key to ♀♀ p. 185) pp. 185–194; *coloradensis* Baker (=*californicus* Van D.) p. 188; *dithyris* **sp. n.** Quebec p. 190, BEIRNE Canad

Ent. **83**.—*O. verticis* Say from *Bythoscopus* p. 13, DELONG & KNULL Graduate Sch. Stud. Ohio Univ. Biol. Sci. Ser. no. 1 1945.—*O. subangulatus* Sahlb. (=*fortior* Wagn.) p. 58, LINNAVUORI Ann. ent. fenn. **17**. —*O.* revision of German spp. pp. 1–25, keys to ♂♂ p. 7, to ♀♀ p. 10; *flavicollis* Lin., *carpini* Sahlb. distinguishing characters p. 17 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **30** 1949 [?1950].

Orocastus omani (also Patagonia), *aurarius* (also Texas) **spp. n.** Arizona p. 182 figs., KNULL Ohio J. Sci. **51**.

Parallaxis jalapai **sp. n.** Mexico p. 36, DELONG & RUPPEL Ohio J. Sci. **51**.

Penthimia sinensis **sp. n.** E. China p. 59 fig., ÔUCHI J. Shanghai Sci. Inst. (N.S.) **2** 1942.

Placotettix taeniatifrons redescription p. 61 figs., CHINA Ent. mon. Mag. **87**.

Platymetopius dubius see *Cloanthanus*.

Poeciloscarta key to spp. of Africa and Madagascar p. 73; *superba* p. 76, *mocquerysii* p. 77, *restricta* p. 78, *segnita, salebra* p. 79, *retinens* p. 82, *alboplagiatula* p. 84, *resonabilis* p. 86, *objecta* p. 88, *melancholica* p. 92 Madagascar, *elongatula* Belg. Congo etc. p. 87 **spp. n.**; *cosmopolita* **var. n.** *sarniensis* Natal p. 92, MELICHAR Ann. hist.-nat. Mus. hung. (N.S.) **1**.

Proconia tuberculicollis Blanch. (=*andina* Schm.) from *Cercopis* p. 198, NAST Ann. Mus. zool. polon. **14**.

Psammotettix majusculus **sp. n.** Finland p. 59 fig., LINNAVUORI Ann. ent. fenn. **17**.—*P. similis* **sp. n.** Germany p. 76 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Rhopalopyx parvispinus **sp. n.** Bohemia p. 88 figs., WAGNER t.c.

Scaphoideus catalinus see *Hebenarus*.

Scinda **subgen. n.** (type *scarlatina* sp. n.) see *Cicadella*.

Tetartostylus **gen. n.** for *Athysanus pellucidus* Mel. p. 29 figs., WAGNER Comment. biol., Helsingf. **12** no. 2.

Tettigonia pudica, sociata, carbuncula, lepida, xanthogramma, rhinetta, illustris, rubricauda, flavolineata, curvovittata, flavomaculata, nigrovittata see *Microgoniella*.

Tettigoniella cornelia, quadrigula, scapula, sertigerula, azeka see *Microgoniella*.

Typhlocyba froggatti **var. n.** *cornuta* Austria, Germany p. 80; *ampliata* **sp. n.** Hungary p. 82 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Ulopa catalogue of Belgian spp. p. 185, SYNAVE Bull. Ann. Soc. ent. Belg. **87**.

PSYLLIDAE (CHERMIDAE).

Characters for the separation of subfamilies of Psyllidae, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4** pp. 1–35, 8 figs.

Revision of Arytaini, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4** pp. 417–454, 8 figs.

Scandinavian Psyllids, I, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4** pp. 657–672, 1 pl.

Ancestry, family relations, evolution and speciation of Psyllids, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4** pp. 1057–1072.

Psyllidae of Utah, JENSEN & KNOWLTON Mimeogr. Ser. Utah agric. Exp. Sta. no. 380, 5 pp.

Revision of German Aphalarinae, with keys, WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948 pp. 55–71, 46 figs.

Aphalara characters of and key to Swedish spp. of group *calthae* pp. 4–6 figs., OSSIANNILSSON Comment. biol., Helsingf. **12** no. 13.—*A. maculipennis* Löw a good sp. and not var. of *calthae* p. 59, WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.—*A. tamaricis* see *Phanerostigma*.

Arytaina revision of spp. pp. 425–454; *africana* **sp. n.** Bardia p. 438; (*Spartina* **subgen. n.** p. 443) figs., HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4**.—*A. extrema* **sp. n.** Marianna Is. p. 274 fig., TUTHILL Pacific Sci. **5**.

Chermes use and status discussed pp. 23–27, LAING Ent. mon. Mag. **87**.

Craspedolepta malachitica synonymy discussed p. 658, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4**.

Diraphia discussed pp. 233–234, LAING Ent. mon. Mag. **87**.

Phanerostigma **gen. n.** for *Aphalara tamaricis* Put. p. 57, WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Psylla use and status discussed pp. 23–27, LAING Ent. mon. Mag. **87**.—*P.* discussion of Swedish *salicicola* complex pp. 668–672, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4**.—*P. americana* genitalia p. 304; *curta* Tuth. a sp. not subsp. of *americana* p. 307; *spiculata* p. 311, *tenuata* p. 315, *nordica* p. 317, *yosemitensis* p. 320 **spp. n.** U.S.A. figs., JENSEN Hilgardia **20**.—*P. myrtilli* **sp. n.** Austria, Germany p. 83 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

Spartina **subgen. n.** (type *spartii* Guér.) see *Arytaina*.

Trioza discussion on Swedish spp. of *proxima-dispar* complex pp. 660–668, HESLOP-HARRISON Ann. Mag. nat. Hist. (12) **4**.—*T. suavis* p. 275, *disjuncta* p. 277 Palau Is., *propria* Marianna Is., *lyra* p. 276, *indigena* p. 278 Caroline Is. **spp. n.** figs., TUTHILL Pacific Sci. **5**.

Xanioptera setosa **sp. n.** & type of genus (=*pilosa* End. nec Löw) S. Russia p. 70 figs., WAGNER Verh. Ver. naturw. Heimatsforsch. Hamburg **29** 1948.

APHIDAE.

Aphidae of Lebanon, ABOU-NASSER Min. Agric. liban. 9 pp. multigraph.

Aphids of Louisiana, BOUDREAUX Proc. La Acad. Sci. **14** pp. 14–22.

List of Aphids collected in Berkshire, EASTOP Entomologist **84** pp. 107–112.

Some obscure Aphid species not in Davidson, Patch & Wilson catalogues, HOTTES Proc. biol. Soc. Wash. **62** 1949 pp. 159–160.

Morphology of Aphids on *Zea mays* in Italy (key to spp. p. 366), MARTELLI Redia **35** 1950 pp. 257–380, 26 figs.

Dactynotinae and Myzinae of France, REMAUDIÈRE Rev. Path. vég. Ent. agric. Fr. **30** pp. 125–142, 1 fig.

Key to Anuraphidea, SHAPOSHNIKOV Ent. Obozr. **31** 1950 p. 215.

Malayan Aphids, TAKAHASHI Ann. ent. Soc. Amer. **43** pp. 587–607, 12 figs.

Some Aphids from Micronesia, TAKAHASHI Tenthredo **3** pp. 209–213 (1941), 349 (1942) figs.

List of Aphids mainly from Skåne, Sweden, WAHLGREN Opusc. ent., Lund **16** pp. 65–73.

Amelanchieria **subgen. n.** (type *sensoriata* G. & B.) see *Nearctaphis*.

Amphorophora crataegi Mon. (= *crataegi* Tiss.) p. 17, BOUDREAUX Proc. La Acad. Sci. **14**.—*A. kesocqua* p. 97, *agathonica* p. 98 **spp. n.** Colorado, HOTTES Proc. biol. Soc. Wash. **63** 1950.

Anomalaphis comperei redescription p. 189; distinguishing characters from *Anomalosiphum pithecolobii* p. 192 figs., ESSIG Ann. ent. Soc. Amer. **44**.

Anomalosiphum pithecolobii distinguishing characters from *Anomalaphis comperei* p. 192 figs., ESSIG t.c.

Anuraphis pyri-laseri **sp. n.** Caucasus p. 68, SHAPOSHNIKOV in ARNOL'DI & others Opred. Faune SSSR **36** 1950.

Aphis vaccinii redescription p. 37, compared with *callunae* p. 39 figs., FIDLER Proc. R. ent. Soc. Lond. (B) **20**.—*A. agathona* p. 21, *urovaneta* p. 24, *tahasa* p. 35, **spp. n.** Colorado; *tonahasa* **n. n.** for *ribis* Sanborn nec L. p. 100, HOTTES Proc. biol. Soc. Wash. **63** 1950.—*A.* (*Wapuna* **subgen. n.**) *tahosalea* p. 47, *piutapa* p. 49, *wahena* p. 50 **spp. n.** Arizona HOTTES & WEHRLE Proc. biol. Soc. Wash. **64**.—*A. pahanensis* **sp. n.** Malaya p. 596 figs., TAKAHASHI Ann. ent. Soc. Amer. **43**.—*A. bakeri*, *crataegifoliae* see *Nearctaphis*; *zeae*, *holci* see *Rhopalosiphum*.

Astegopteryx fransseni **subsp. n.** *kepongensis* Malaya p. 606 figs., TAKAHASHI Ann. ent. Soc. Amer. **43.**

Braggia uncompahgrensis **sp. n.** Colorado p. 18, HOTTES Proc. biol. Soc. Wash. **63** 1950.

Brevicoryne brassicae all stages p. 15 figs., BONNEMAISON Ann. Inst. Rech. agron. (C) Ann. Epiphyties **2.**

Byrsocrypta Hal. (=*Pemphigus* Htg.) discussed pp. 108–109, LAING Ent. mon. Mag. **87.**

Capitophorus patonkus **var. n.** *coloradensis* Colorado p. 100, HOTTES Proc. biol. Soc. Wash. **63** 1950.

Chaitophorus minutus Tiss. from *Sipha* p. 16, BOUDREAUX Proc. La Acad. Sci. **14.**

Cinara key to Canadian spp. E. of Rockies with descriptive notes pp. 333–335, BRADLEY Canad. Ent. **83.**—*C. wahhaka* **sp. n.** Colorado p. 145; *burrilli* characters p. 146, HOTTES Proc. biol. Soc. Wash. **64.**—*C. tonaluca* **sp. n.** Arizona p. 45, HOTTES & WEHRLE Proc. biol. Soc. Wash. **64.**

Dactynotus cameronensis **sp. n.** Malaya p. 593 figs., TAKAHASHI Ann. ent. Soc. Amer. **43.**

Debilisiphon **gen. n.**, *umbelliferarum* **sp. n.** N. Caucasus p. 226 fig., SHAPOSHNIKOV Ent. Obozr. **31** 1950.

Dentatus bicolor see *Nevskyaphis*; *pilosus* see *Mordvilkomemor.*

Eutrichosiphum lithocarpi **subsp. n.** *malayense* Malaya p. 589, TAKAHASHI Ann. ent. Soc. Amer. **43.**

Fitchiella **subgen. n.** (type *crataegifoliae* Fitch) see *Aphis.*

Goidanichiellum **subgen. n.** (type *dirhodum* Wlk.) see *Macrosiphum.*

Greenidea hirsuta **sp. n.** Malaya p. 588 figs., TAKAHASHI Ann. ent. Soc. Amer. **43.**

Greenideoida vandermeermohri alate viviparous ♀; *mesuae* **sp. n.** Malaya p. 590, TAKAHASHI t.c.

Lachnochaitophorus obscurus Tiss. from *Patchia* p. 16, BOUDREAUX Proc. La Acad. Sci. **14.**

Macrosiphum bonitum p. 15, *oljatae* p. 37, *cockerelli* p. 100 **spp. n.** U.S.A.; *glabrum* apterous ♂ p. 26; *atripes* ♂♀ p. 37, HOTTES Proc. biol. Soc. Wash. **63** 1950.—*M.* (*Goidanichiellum* **subgen. n.** p. 319) figs., MARTELLI Redia **35** 1950.

Mordvilkomemor **gen. n.** for *Dentatus pilosus* Mordv. p. 225 fig., SHAPOSHNIKOV Ent. Obozr. **31** 1950.

Myzocallis tectae Tiss. from *Therioaphis* p. 17, BOUDREAUX Proc. La Acad. Sci. **14.**—*M. tonkawa* **sp. n.** Colorado p. 105, HOTTES Proc. biol. Soc. Wash. **62** 1949.

Myzus (*Myzodes*) *persicae* nomenclature discussed p. 101; key to German spp. p. 103 figs., BÖRNER Nachr. dtsch. PflSchDienst (N.F.) **5.**—*M. persicae* morphology p. 83, NOWAK Z. Pflanzenb. u. Pflanzenschutz **2.**—*M. persicae* fundatrices p. 21 figs., NOWAK Pflanzenschutz **3.**—*M. persicae* all stages p. 36 figs., BONNEMAISON Ann. Inst. Rech. agron. (C) Ann. Epiphyties **2.**—*M. persicae* morphology pp. 196–203 figs., SOLIMAN Bull. Soc. Fouad ler Ent. **35.**

Nearctaphis **gen. n.** for *Aphis bakeri* Cowen (type) p. 223, (*Fitchiella* **subgen. n.**) *crataegifoliae* Fitch, (*Amelanchieria* **subgen. n.**) *sensoriata* Gill. & Brag. p. 224 figs., SHAPOSHNIKOV Ent. Obozr. **31** 1950.

Nevskyaphis **gen. n.** for *Dentatus bicolor* Nevsk. p. 225 fig., SHAPOSHNIKOV t.c.

Oregma pendleburyi p. 597, *gombakana* p. 598 **spp. n.** Malaya figs., TAKAHASHI Ann. ent. Soc. Amer. **43.**—*O. bambusae* **var. n.** *carolinensis* Caroline Is. p. 211 fig., TAKAHASHI Tenthredo **3** 1941.

Patchia obscurus see *Lachnochaitophorus.*

Pemphigus see *Byrsocrypta.*

Rhopalosiphum maidis Fitch distinct from *Aphis zeae* Bonaf. p. 292; *padi* L. (=*Aphis zeae* B., *A. holci* Ferr.) pp. 292, 298 figs., MARTELLI Redia **35** 1950.

Rungsia see *Sipha.*

Schizolachnus tusoca **sp. n.** Arizona p. 43, HOTTES & WEHRLE Proc. biol. Soc. Wash. **64.**

Sipha (*Rungsia* reduced to subgen. p. 273, included spp. p. 274); (*R.*) *maydis* Pass. (=*R. graminis* Mim.) p. 273 figs., MARTELLI Redia **35** 1950.—*S. minuta* see *Chaitophorus.*

Sitobion avenae **subsp. n.** *graminis* Malaya p. 593 figs., Takahashi Ann. ent. Soc. Amer. **43.**

Sorbaphis **gen. n.,** *chaetosiphon* **sp. n.** S. Ural p. 224 fig., Shaposhnikov Ent. Obozr. **31** 1950.

Tetraneura Htg. valid p. 109, Laing Ent. mon. Mag. **87.**

Therioaphis tectae see *Myzocallis.*

Thoracaphis kayashimai p. 602, *flavus* p. 603, *malaynus* p. 604, *gooti* p. 605 **spp. n.** Malaya figs., Takahashi Ann. ent. Soc. Amer. **43.**

Trichoregma malaccensis, flava **spp. n.** Malaya p. 600 figs., Takahashi t.c. —*T. esakii* **sp. n.** Palau Is. p. 210 fig., Takahashi Tenthredo **3** 1941.

Utamphorophora timpanogos apterous viviparous ♀ p. 38, Hottes Proc. biol. Soc. Wash. **63** 1950.

Wapuna **subgen. n.** (type *tahosalea* sp. n.) see *Aphis.*

Zinia **gen. n.,** *veronicae* **sp. n.** R. Ural p. 221 figs., Shaposhnikov Ent. Obozr. **31** 1950.

Aleurodidae.

Acaudaleyrodes **gen. n.,** *pauliani* **sp. n.** Madagascar p. 382 figs., Takahashi Mém. Inst. sci. Madagascar **6A.**

Aleurocanthus woglumi morphology pp. 313–322 figs., Islas S. An. Inst. Biol., Mexico **22.**

Aleurodicus cinnamomi p. 1, *malayensis* p. 2 **spp. n.** Malaya figs., Takahashi Kontyû **19.**

Aleurolobus musae see *Neoaleurolobus.*

Aleuroplatus weinmanniae p. 373, *tuberculatus* p. 375, *anapatsae* p. 376, *madagascariensis* p. 378 **spp. n.** Madagascar figs., Takahashi Mém. Inst. sci. Madagascar **6A.**

Aleurotrachelus fanalae Madagascar p. 379, *pandani* Mauritius p. 380 **spp. n.** figs., Takahashi t.c.—*A. camelliae* further description p. 20; *ishigakiensis* Takah. from *Trialeurodes* p. 22, Takahashi Misc. Rep. Res. Inst. nat. Resourc. Tokyo no. 19–21.

Aleyrodes shizuokensis resdescription p. 19, Takahashi Misc. Rep. Res. Inst. nat. Resourc. Tokyo no. 19–21.—*A. kuchinasii* see *Dialeurodes citri.*

Corbettia tamarindi **sp. n.** Madagascar p. 365 fig., Takahashi Mém. Inst. sci. Madagascar **6A.**

Dialeurodes citri Ashm. (= *Aleyrodes kuchinasii* Sasaki) p. 19, Takahashi Misc. Rep. Res. Inst. nat. Resourc. Tokyo no. 19–21.

Dialeurolonga agauriae p. 354, *brevispina* p. 356, *maculata* p. 358, *pauliani* p. 360, *eugeniae* p. 362, *milloti* p. 364 **spp. n.** Madagascar figs., Takahashi Mém. Inst. sci. Madagascar **6A.**

Heteraleyrodes bambusicola **sp. n.** Malaya p. 4 fig., Takahashi Kontyû **19.**

Neoaleurolobus **gen. n.** for *Aleurolobus musae* Corb. (type) p. 5; *corbetti* **sp. n.** Malaya p. 7 figs., Takahashi t.c.

Nipaleyrodes **gen. n.,** *elongata* **sp. n.** Malaya p. 3 fig., Takahashi t.c.

Setaleyrodes mirabilis further description p. 23, Takahashi Misc. Rep. Res. Inst. nat. Resourc. Tokyo no. 19–21.

Taiwanaleyrodes meliosmae pupa case p. 24, Takahashi t.c.

Tetraleurodes madagascariensis **sp. n.** Madagascar p. 384 figs., Takahashi Mém. Inst. sci. Madagascar **6A.**

Trialeurodes bambusicola p. 367, *graminis* p. 368, *mameti* p. 370 **spp. n.** Madagascar figs., Takahashi t.c.—*T. ishigakiensis* see *Aleurotrachelus.*

Xenobemisia **gen. n.,** *coleae* **sp. n.** Madagascar p. 372 figs., Takahashi Mém. Inst. sci. Madagascar **6A.**

Coccidae.

Diaspidinae of France, Europe, N. Africa and Mediterranean region, pt. 3, Balachowsky Actualités sci. indust. no. 1127, 162 pp. 40 pls.

Injurious Coccids of Rio Grande do Sul, Gomes Costa & Redaelli Bol. Sec. Agric. Rio Grande do Sul Sér. C. no. 152 1949 107 pp. 68 figs.

List of Swedish Coccids, Ossiannilsson Opusc. ent., Lund **16** pp. 1–9.

List and characters of Iceryine spp. known from the Orient, PRABHAKER RAO Indian J. Ent. **12** pp. 41–50, 127–158.

List of Pseudococcidae known from Malaya, TAKAHASHI Indian J. Ent. **12** p.1.

Some Coccids from Micronesia, TAKAHASHI Tenthredo **3** pp. 213–220 (1941), 350–358 (1942) figs.

Allomyrmococcus **gen. n.**, *acariformis* **sp. n.** Siam p. 201 figs., TAKAHASHI Tenthredo **3** 1941.

Anatolaspis **gen. n.**, *abedini* **sp. n.** Asia Minor p. 330, BODENHEIMER Ent. Ber., Amst. **13.**

Aonidiella araucariae **sp. n.** Brazil p. 174 figs., DA COSTA LIMA Arq. Inst. biol., S. Paulo **20.**—*A. arthrophyti, halophila* see *Schizotargionia.*

Archangelskaia **gen. n.** for *Parlatoria ephedrae* Ldgr. p. 331, BODENHEIMER Ent. Ber., Amst. **13.**

Asterolecanium phoenicis see *Palmaspis*; *pustulans* see *Russellaspis*; *tenax* see *Morrisonia.*

Ceroplastes revision of Portuguese spp. pp. 111–136, 177–188, key p. 133; *rusci, sinensis* eggs p. 181, larvae p. 182 figs., DOS SANTOS VILAR Brotéria (Ci. nat.) **20.**

Chionaspis lepineyi see *Marchaliella.*

Chortinaspis salavatiani **sp. n.** Iranian Baluchistan p. 2 fig., BALACHOWSKY & KAUSSARI Bull. Soc. Fouad Ier Ent. **35.**

Chrysomphalus dictyospermi all stages pp. 389–418 figs., CABIDO GARCIA Bol. Junta nac. Frutas, Lisbon **9** 1949.

Coccomytilus farsetiae see *Eremohallaspis.*

Crypticerya clauseni Malay States p. 144, *jaihind* p. 148, *kumari* p. 152 India **spp. n.** figs., PRABHAKER RAO Indian J. Ent. **12.**

Ctenochiton carinatus **sp. n.** Riouw Is. p. 107 figs., TAKAHASHI Insecta matsum. **17.**

Diaspidiotus convexus **sp. n.** France p. 10 figs., GOUX Bull. Soc. ent. Fr. **56.**

Diaspis syriaca see *Ferrisidiaspis*; *capperidis* see *Sinaidiaspis.*

Dynaspidiotus greeni **sp. n.** Cyprus p. 137 figs., BALACHOWSKY Actualités sci. indust. no. 1127.

Eremaspis **gen. n.** for *Pinnaspis zillae* Hall (type), *P. acantholimoni* Bdhmr., *P. bilobis* Newst. p. 330, BODENHEIMER Ent. Ber., Amst. **13.**

Eremiaspis **gen. n.** for *Hemiberlesia balachowskyi* Rungs p. 113 figs., BALACHOWSKY Actualités sci. indust. no. 1127.

Eremohallaspis **gen. n.** for *Coccomytilus farsetiae* Hall p. 330, BODENHEIMER Ent. Ber., Amst. **13.**

Ferrisidiaspis **gen. n.** for *Diaspis syriaca* Ldgr. p. 329, BODENHEIMER Ent. Ber., Amst. **13.**

Fiorinia pygosema see *Mongrovaspis.*

Formicococcus odontomachi **sp. n.** Malaya p. 15 fig., TAKAHASHI Indian J. Ent. **12.**

Genistaspis **gen. n.**, *zelihae* **sp. n.** Asia Minor p. 329, BODENHEIMER Ent. Ber., Amst. **13.**

Greenoripersia **gen. n.** for *Ripersia kaiseri* Bdhmr. p. 329, BODENHEIMER Ent. Ber., Amst. **13.**

Halococcus **gen. n.**, *formicarii* **sp. n.** Malaya p. 1 figs., TAKAHASHI Mushi **22.**

Heliococcus sakai p. 16, *multipori* p. 18 **spp. n.** Malaya figs., TAKAHASHI Indian J. Ent. **12.**

Hemiberlesia pseudorapax **sp. n.** New Mexico, California p. 81 figs., MCKENZIE Bull. Dep. Agric. Calif. **40.**—*H. mckenziei* **sp. n.** Riouw Is. p. 111 fig., TAKAHASHI Insecta matsum. **17.**—*H. balachowskyi* see *Eremiaspis*; *ceardi* see *Saharaspis.*

Icerya aegyptiaca Dgl. (=*tangalla* Green) p. 51; *formicarum* characters p. 54; *imperatae* Philippines p. 58, *menoni* India p. 60, *morrisoni* China, Manila p. 64 **spp. n.** figs., PRABHAKER RAO Indian J. Ent. **12.**—*I. pilosa* Gr. (=var. *nardi* Gr.) p. 129; *sumatrana* Java, Sumatra p. 137, *travancorensis* India p. 140 **spp. n.** figs., PRABHAKER RAO Indian J. ent. **12.**

Inglisia speciosa **sp. n.** Riouw Is. p. 108 figs., TAKAHASHI Insecta matsum. **17.**

Kuwanaspis phyllostachydis **sp. n.** Transcaucasia, Crimea p. 15 figs., BORKHSENIUS & KHADZHIBEĬLI Ent. Obozr. **31** 1950.

Lepidosaphes micronesiensis **sp. n.** Caroline Is. p. 355 figs., TAKAHASHI Tenthredo **3** 1942.

Leucaspis quadrispinosa see *Mongrovaspis.*

Malaicoccus formicarii **sp. n.** Malaya p. 5 figs., TAKAHASHI Mushi **22.**

Marchaliella **gen. n.** for *Chionaspis lepineyi* Bal. p. 331, BODENHEIMER Ent. Ber., Amst. **13.**

Mongrovaspis **gen. n.** for *Leucaspis quadrispinosa* Gr. (type), *Fiorinia pygosema* Gr. p. 331, BODENHEIMER t.c.

Morrisonia **gen. n.** for *Asterolecanium tenax* Bdhmr. p. 328, BODENHEIMER t.c.

Mytilococcus destefanii morphology pp. 292–295 figs., PEGAZZANO Redia **36.**

Palmaspis **gen. n.** for *Asterolecanium phoenicis* Ram. Rao p. 328, BODENHEIMER Ent. Ber., Amst. **13.**

Paralecanium minutum **sp. n.** Riouw Is. p. 103 fig., TAKAHASHI Insecta matsum. **17.**

Paralecanopsis **gen. n.**, *turcica* **sp. n.** Asia Minor p. 329, BODENHEIMER Ent. Ber., Amst. **13.**

Paramyrmococcus **gen. n.**, *chiengraiensis* **sp. n.** Siam p. 304 figs., TAKAHASHI Tenthredo **3** 1941.

Parlatoria flava **sp. n.** Riouw Is. p. 109 fig., TAKAHASHI Insecta matsum. **17.**—*P. ephedrae* see *Archangelskaia.*

Partargionia artocarpi see *Semelaspidus.*

Phenacoccus pratti **sp. n.** Malaya p. 20; *nephelii* ♀ p. 21 figs., TAKAHASHI Indian J. Ent. **12.**

Pinnaspis zillae, acantholimoni, bilobis see *Eremaspis.*

Planococcus tuaregensis **sp. n.** Centr. Sahara p. 199 fig., BALACHOWSKY Rev. Path. vég. Ent. agric. **30.**

Platylecanium elongatum, riouwense **spp. n.** Riouw Is. p. 104 figs., TAKAHASHI Insecta matsum. **17.**

Pseudococcus orchidiradicis p. 2, *dischidiae* p. 3, *cameronensis* p. 5, *pahanensis* p. 7, *ridleyi* p. 8, *bambusifolii* p. 9, *moribensis* p. 10 **spp. n.** Malaya figs., TAKAHASHI Indian J. Ent. **12.**—*P. esakii* **sp. n.** Palau Is. p. 350 fig., TAKAHASHI Tenthredo **3** 1942.

Pseudotargionia orientalis **sp. n.** Iranian Baluchistan p. 3 fig., BALACHOWSKY & KAUSSARI Bull. Soc. Fouad Ier Ent. **35.**

Ripersia corynephori redescription pp. 189–206 figs., REYNE Tijdschr. Ent. **94.**—*R. kaiseri* see *Greenoripersia.*

Russellaspis **gen. n.** for *Asterolecanium pustulans* Ckll. p. 328, BODENHEIMER Ent. Ber., Amst. **13.**

Saharaspis **gen. n.** for *Hemiberlesia ceardi* Balach. p. 9 figs., BALACHOWSKY Actualités sci. indust. no. 1127.

Salicicola davatchi **sp. n.** Iranian Baluchistan p. 6 figs., BALACHOWSKY & KAUSSARI Bull. Soc. Fouad Ier Ent. **35.**

Schizotargionia **gen. n.** for *Aonidiella arthrophyti* Arch. (type), *halophila* Balach. p. 86 figs., BALACHOWSKY Actualités sci. indust. no. 1127.

Semelaspidus artocarpi Gr. (=*cistuloides* Gr., *triglandulosa* Gr.) from *Partargionia* p. 261, PRABHAKER RAO Proc. ent. Soc. Wash. **53.**

Sinaidiaspis **gen. n.** for *Diaspis capperidis* Bdhmr. p. 329, BODENHEIMER Ent. Ber., Amst. **13.**

Steatococcus assamensis **sp. n.** Assam p. 154 figs., PRABHAKER RAO Indian J. Ent. **12.**

Trionymus pandanicola **sp. n.** Palau Is. p. 215 fig., TAKAHASHI Tenthredo **3** 1941.—*T. lumpurensis* p. 12, *kayashimai* p. 14 **spp. n.** Malaya figs., TAKAHASHI Indian J. Ent. **12.**

Tylococcus malaccensis **sp. n.** Malacca p. 11 fig., TAKAHASHI t.c.—*T. carnosae* **sp. n.** Malaya p. 3 figs., TAKAHASHI Mushi **22.**

Xenolecanium rotundum **sp. n.** Riouw Is. p. 105 fig., TAKAHASHI Insecta matsum. **17.**

THYSANOPTERA.

Thysanoptera of the Harz (list pp. 182–184), VON OETTINGEN Beitr. Ent., Berlin **1** pp. 140–186, 4 figs.

Thysanoptera of Parc nat. Albert, Belg. Congo, PRIESNER Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 77 pp. 3–6.

Key to characters of British Aeolothripidae, SPEYER & PARR Rep. exp. Res. Sta., Cheshunt **36** p. 39.

Thysanoptera of Borkum I., STRUVE Abh. naturw. Ver. Bremen **31** 1941 pp. 833–834.

Aeolothrips revision of N. American spp. pp. 43–80, key p. 46 ; *brunneipictus*, *clarus* p. 53, *hesperus* p. 58, *interruptus* p. 59, *major* p. 60, *metacrucifer* p. 61, *montanus* p. 62, *occidentalis* p. 63, *terrestris* p. 64 **spp. n.** U.S.A. ; *vittipennis* Hood (=*floridensis* Wats.); *oculatus* Hood p. 66, *yosemitae* Mltn. p. 67 subspp. of *vittipennis* figs., BAILEY Hilgardia **21.**

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Celidothrips **gen. n.** for *Docessissophothrips adiaphorus* Karny p. 361, PRIESNER Ann. Mag. nat. Hist. (12) **4.**

Cryptothrips nigripes larva p. 78 figs., PELIKÁN Sborn. Kl. přír. Brné **29.**

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Dinothrips sumatrensis ♀, pupa p. 163 fig., ANANTHAKRISHNAN Current Sci. **20.**

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Kuschelochilis **gen. n.** p. 199, *ochagaviae* **sp. n.** Juan Fernandez I. p. 200 figs., WYGODZINSKY Rev. chil. Ent. **1.**

Limothrips consimilis further description p. 48 figs., VON OETTINGEN Beitr. Ent., Berl. **1.**

Melanthrips fuscus Sulz., *ficalbii* Buffa characters p. 37 ; *fuscus* (=*harrisoni* Bagn., *gracilicornis* Maltb.); *ficalbi* (=*angusticeps* Bagn., *anglicus* Pr.) p. 38 figs., SPEYER & PARR Rep. exp. Res. Sta., Cheshunt **36.**

Neoheegeria ballotae **sp. n.** Centr. Sahara p. 365, PRIESNER Ann. Mag. nat. Hist. (12) **4.**

Odontothrips dorycnii France p. 355, *viciae* Palestine p. 356, *meliloti* no locality p. 358 **spp. n.**; annotated key revised 1950 p. 357, PRIESNER t.c.

Pezidothrips **gen. n.** for *Haplothrips robiniae* Priesn. p. 366, PRIESNER t.c.

Poecilothrips further description p. 162 ; *albopictus* Uzel (=*ornatus* Hood) ♀ p. 153, ♂ p. 155, early stages p. 156 figs., PELIKÁN Ent. Listy **13.**

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Taeniothrips laricivorus morphology p. 112, early stages p. 125 figs., NOLTE Beitr. Ent., Berlin **1.**—*T. dianthi* all stages p. 12 ; *moravicus* **sp. n.** Czechoslovakia p. 60 figs., PELIKÁN Ent. Listy **14.**—*T. simplex* characters p. 55 figs., SPEYER Proc. R. ent. Soc. Lond. (B) **20.**

Terthrothrips liberiensis, *clavivestis*, *gracilicornis* see *Porcothrips*.

Thrips temporatus **n. n.** for *setosus* Moulton 1929 nec 1928 p. 19, BAILEY

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List of Anoplura from Texas, MENZIES, EADS & HIGHTOWER Proc. ent. Soc. Wash. **53** pp. 150–152.

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Mallophaga of Tadzhikistan (host list pp. 314–323), BLAGOVESHCHENSKIĬ Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **13** pp. 272–327, 18 figs.

Systematic notes on the Piaget collections, II, III, CLAY Ann. Mag. nat. Hist. (12) **4** pp. 173–182, 1159–1168, 1 pl. 15 figs.

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Review of species of Mallophaga described by Scopoli in 1763 and 1772, by Pontoppidan in 1763 and by Fabricius in 1775, CLAY & HOPKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **2** pp. 1–37, 3 pls. 45 figs.

Mallophaga of Zavattari's Expedition to Sagan-Omo, CONCI Riv. Biol. colon. **10** pp. 77–82, 7 figs.

List of Mallophaga from gallinaceous birds of N. America, EMERSON J. Wildlife Manag. **15** pp. 193–195.

Proposal to Int. Comm. zool. Nomen. to designate types of 4 genera in Mallophaga, HOPKINS Bull. zool. Nomen. **6** pp. 54–64.

Remarks on Eichler's supplement to bibliography of Mallophaga, VON KÉLER Z. angew. Ent. **32** pp. 610–612.

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Columbicola Ew. (=*Phagopterus* Freire & Duarte) *columbae* L. (=*columbae* F. & D.) p. 372, Hopkins Ann. Mag. nat. Hist. (12) **4.**—*C. montschadskyi* **sp. n.** (on *Columba livia neglecta*) Tadzhikistan p. 308 figs., Blagoveshchenskiĭ Parasitol. Sborn. zool. Inst. Akad. Nauk SSSR **13.**

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Saemundssonia systematic and morphological notes pp. 1–33; *gonothorax* **subsp. n.** *lariphaga* [cf. Z.R. **86** 1949 p. 373] (on *Larus hyperboreus*) Heligoland p. 13 figs., EICHLER Greinar **3** [preprint 1950].—*S. kratochvíli* **sp. n.** (on *Capella g. gallinago*) Moravia pp. 109, 112; *aurata* characters pp. 111, 113 figs., BALÁT Ent. Listy **13.**—*S. uppalensis* host discussed p. 374; *clayi* Hopk. emended to *clayae* p. 377, HOPKINS Ann. Mag. nat. Hist. (12) **4.**—*S.* revision of spp. on waders pp. 390–401; *platygaster* **subsp. n.** *islandica* (on *Calidris canutus*) Iceland p. 395; *thompsoni* (on *Limosia limusa*) Wales p. 396, *africana* (on *Hemiparra crassirostris*, *Afribyx senegallus lateralis*, *Stephanibyx* spp.) Uganda p. 398 **spp. n.** figs., TIMMERMANN Ann. Mag. nat. Hist. (12) **4.**—*S. incisa* **sp. n.** (on *Oceanodroma leucorrhoa*) Iceland p. 7 fig., TIMMERMANN Fn. islandica no. 2 1950.—*S. meridiana* **sp. n.** (on *Sterna anaethetus melanoptera*) Antigua p. 1 fig., TIMMERMANN Parasit. News, Reykjavik ser. 1 no. 1 1950.—*S.* revision of spp. on gulls 12 pp.; *lari* **subspp. n.** *fallai* (on *Larus novae-hollandiae*) Auckland I. p. 7, *meinertzhageni* (on *L. heermanni*) California, *waterstoni* (on *L. minutus*) p. 8; *inexspectata* **sp. n.** (on *L. minutus*) p. 9 England figs., TIMMERMANN op. cit. ser. 2 no. 1.

Uchida abdominalis **subsp. n.** *indicus* (on *Coturnix c. coturnix*) p. 135; *kalatitar* (on *Francolinus f. asiae*) **sp. n.** India p. 137 figs., ANSARI Proc. nat. Inst. Sci. India **17.**

Ululoecus **subgen. n.** (type *panjabensis* sp. n.) see *Cuculiphilus*.

PSOCOPTERA.

Psocoptera of Isle of Wight, BLAIR Proc. Is. Wight nat. Hist. Soc. **4** p. 158.

Psocoptera of Indiana, MOCKFORD Proc. Indiana Acad. Sci. **60** pp. 192–204.

Psocoptera of Moravia, II, OBR Sborn. Kl. přír. Brné **29** pp. 105–119, 7 figs.

Caecilius flavidus p. 606, *burmeisteri* p. 608 early stages, MEDEM Zool. Jahrb. Abt. Syst. **79.**

Graphopsocus cruciatus sexual differences p. 594 figs., MEDEM t.c.

Heterolepinotus quadrispinosus ♀ further description, ♂ p. 115 figs., OBR Sborn. Kl. přír. Brné **29.**

Liposcelis myrmecophilus, *rufus* see *Troctes*; *simulans* see *T. kidderi*.

Peripsocus truncatus Bad. raised to sp. not var. of *didymus*, ♂ p. 88; *consobrinus* **sp. n.** England p. 89 figs., PEARMAN Ent. mon. Mag. **87.**

Stenopsocus stigmaticus egg p. 610, MEDEM Zool. Jahrb. Abt. Syst. **79.**

Trichopsocus acuminatus sexual differences p. 602, MEDEM t.c.

Troctes myrmecophilus Broadhead p. 85, *rufus* B. from *Liposcelis*; *kidderi* Hag. (=*L. simulans* B.) p. 85; *gallicus* **sp. n.** Scilly Is., France p. 87 figs., PEARMAN Ent. mon. Mag. **87.**

ISOPTERA.

Termites of Madagascar, suppl. 1, CACHAN Mém. Inst. sci. Madagascar **5A** pp. 1–18, 30 figs.

Isoptera of France, CHOPARD Fn. de France **56** pp. 50–58, 10 figs.

Some E. African termites, HARRIS Proc. R. ent. Soc. London (B) **20** pp. 25–28, 1 fig.

Cubitermes subinteger see *Gibbotermes*.

Gibbotermes **gen. n.** for *Cubitermes subinteger* Cach. (type) p. 10; *mandibularis*, *longiceps* p. 12, *minor*, *major* p. 14, *sakarahensis* p. 15 **spp. n.** Madagascar figs., CACHAN Mém. Inst. sci. Madagascar **5A.**

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Nasutitermes vadoni **sp. n.** Madagascar p. 16 figs., CACHAN t.c.

Pericapritermes gloveri **sp. n.** Tanganyika, N. Rhodesia p. 26 fig., HARRIS Proc. R. ent. Soc. Lond. (B) **20.**

Proneotermes delphinensis **sp. n.** Madagascar p. 1 figs., CACHAN Mém. Inst. sci. Madagascar **5A.**

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Embioptera of France, CHOPARD Fn. de France **56** pp. 338–342, 5 figs.

Donaconethis sudanica **sp. n.** Sudan p. 384 fig., Ross Ann. Mag. nat. Hist. (12) **4.**

Embia pallida **sp. n.** Sudan p. 382 fig., Ross t.c.

Oligotoma (*Aposthonia*) *oceania* **sp. n.** Oceania p. 307 figs., Ross Proc. Hawaii. ent. Soc. **14.**

Parachirembia brunnea **sp. n.** Gold Coast p. 386 fig., Ross Ann. Mag. nat. Hist. (12) **4.**

PLECOPTERA.

Plecoptera of Isle of Wight, BLAIR Proc. Is. Wight nat. Hist. Soc. **4** p. 158.

Plecoptera of Afghanistan, BRINCK Vidensk. Medd. Dansk naturh. Foren. **112** 1950 pp. 133–138, 3 figs.

Plecoptera of France, DESPAX Fn. de France **55** 280 pp. 128 figs.

Supplement to list of Plecoptera of Hanover, ILLIÈS Beitr. Naturk. Niedersachs. **3** 1950 pp. 114–116.

Revision of Australian and Tasmanian Gripopterygidae and Nemouridae, KIMMINS Bull. Brit. Mus. (Nat. Hist.) Ent. **2** pp. 45–93, 40 figs.

GRIPOPTERYGIDAE (LEPTOPERLIDAE).

Gripopterygidae (=Leptoperlidae) p. 46, KIMMINS Bull. Brit. Mus. (Nat. Hist.) Ent. **2.**

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Perlodes (*Perlodinella* status discussed p. 138) *nuristica* **sp. n.** Afghanistan p. 133; (*P.*) *kuenluensis* Sámal from *Megarcys* p. 137 figs., Brinck Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Perlidae.

Chloroperla montana nymph p. 280 figs., Aubert Mitt. schweiz. ent. Ges. **24**.—*C. grammatica* morphology p. 30 figs., Grandi Boll. Ist. Ent. Bologna **18**.

Harrisiola **gen. n.** for *Neophasganophora flavescens* Walsh p. 117, Banks Psyche **55** 1948. [Cf. Z.R. **85** 1948 p. 335.]

Isopteryx serricornis morphology p. 42 figs., Grandi Boll. Ist. Ent. Bologna **18**.

Neophasganophora flavescens see *Harrisiola*.

EPHEMEROPTERA (PLECTOPTERA).

Ephemeroptera of Isle of Wight, Blair Proc. Is. Wight nat. Hist. Soc. **4** p.159.

Cape mayflies IX, X, Harrison Piscator **5** pp. 48–50, 1 fig., 75–78, 1 fig.

Systematic importance of hexapod tentorium, Hudson J. ent. Soc. sthn Afr. **14** pp. 3–23, 12 figs.

Supplement to list of Ephemeroptera of Hanover, Illiès Beitr. Naturk. Niedersachs. **3** 1950 pp. 112–114.

Ephemeroptera of Parc nat. Albert, Verrier Explor. Parc nat. Albert, Miss. Damas (1935–36) no. 20, 12 pp. 3 figs.

Palingeniidae.

Palingeniidae of New Guinea, Lieftinck Bijdr. Dierk. **28** 1949 pp. 308–314, 1 fig. 1 map.

Palingenia revision pp. 303–307; *sublongicauda* **sp. n.** Siberia, Kazakstan, Uzbekistan p. 306 figs., Chernova Ent. Obozr. **30** 1949.

Ephemeridae.

Ephemera ♀ sp. p. 46, Verrier Bull. Soc. ent. Fr. **56**.

Leptophlebiidae.

Cryptopenella **gen. n.** p. 125, *facialis* **sp. n.** Hong Kong p. 127 figs., Gillies Proc. R. ent. Soc. Lond. (B) **20**.

Habrophlebia delamarei **sp. n.** Ivory Coast p. 45 fig., Verrier Bull. Soc. ent. Fr. **56**.

Habrophlebiodes semicastanea **sp. n.** India p. 125 figs., Gillies Proc. R. ent. Soc. Lond. (B) **20**.

Isca **gen. n.** p. 127, *purpurea* **sp. n.** Hong Kong, N. Bengal p.128 figs., Gillies t.c.

Thraulus hindustanicus p. 122, *parvulus* p. 124 **spp. n.** India figs., Gillies t.c.

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Caenis macrura morphology p. 75 (1950); *felsinea* p. 120, *valentinae* p. 124 Italy, *hoggariensis* Hoggar p. 176 **spp. n.** (1951) figs., Grandi Boll. Ist. Ent. Bologna **18**.

Baetidae.

Baetis atrebatinus morphology p. 82 (1950); *pavidus* Grnd. (=*parva* G.) p. 181 (1951), Grandi Boll. Ist. Ent. Bologna **18**.

Centroptilum rubidum **sp. n.** Afghanistan p. 237 fig., Kimmins Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Choroterpes picteti morphology p. 61 figs., Grandi Boll. Ist. Ent. Bologna **18** 1950.

Oligoneuriidae.

Lachlania powelli **sp. n.** Utah p. 327 figs., Edmunds Proc. ent. Soc. Wash. **53**.

Oligoneuriella rhenana morphology p. 87 figs., GRANDI Boll. Ist. Ent. Bologna **18** 1950.

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Ameletus inopinatus nymph p. 90 fig., MACAN Hydrobiologia **3**.

Siphlonurus lacustris p. 84, *linneanus* p. 89 nymphs figs., MACAN t.c.

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Metreletus **gen. n.** for *Metretopus goetghebueri* Lest. (redescription p. 2) (type) pp. 10, 15, *M. hessei* Fiz., *M. balcanicus* Ulm. figs., DEMOULIN Bull. Inst. R. Sci. nat. Belg. **27** no. 49.

Metretopus goetghebueri, hessei, balcanicus see *Metreletus*.

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Ecdyonurus fluminum morphology p. 86, GRANDI Boll. Ist. Ent. Bologna **18** 1950.

ODONATA (PARANEUROPTERA).

Odonata of Isle of Wight, BLAIR Proc. Is. Wight nat. Hist. Soc. **4** p. 159.

New records of Maine Odonata, BORROR Ent. News **62** pp. 209–217.

Odonata of Lazio, CASTELLANI Boll. Ass. romana Ent. **5** pp. 21–27.

New Odonata records for Kentucky, COOK Ent. News **62** pp. 181–188.

Odonata of Dahomey (pp. 1077–1085), of Togo (pp. 1086–1091), FRASER Bull. Inst. franç. Afr. noire **13**.

Odonata from Senegal, FRASER Bull. Inst. franç. Afr. noire **13** pp. 1093–1097.

Odonata of Swabian-Bavarian plateau, FREY Ent. Arb., Münich **2** pp. 104–115.

The early stages of Odonata, GARDNER Trans. S. London ent. nat. Hist. Soc. **1950-51** pp. 83–88, 6 pls.

Records of some Virginia Odonata, GLOYD Ent. News **62** pp. 109–114.

Cape dragonflies, HARRISON Piscator **5** pp. 114–128, 5 figs.

Odonata of N.E. Texas, HARWELL Texas J. Sci. **3** pp. 204–207.

Observations on New Zealand Odonata, HUDSON Fragm. N.Z. Ent. [1951] pp. 120–122.

Supplement to list of Odonata of Hanover, ILLIÈS Beitr. Naturk. Niedersachs. **4** p.89.

Odonata from Afghanistan, KIMMINS Vidensk. Medd. Dansk naturh. Foren. **112** 1950 pp. 235–237.

Derivation of Odonate fauna of Ceylon, LAIDLAW Ent. News **62** pp. 77–83.

Dragonflies of Archbold Expedition 1948 to Cape York Peninsula (list p. 40), LIEFTINCK Amer. Mus. Novit. no. 1488 46 pp. 15 figs.

Addenda to "Dragonflies of the British Isles", LONGFIELD Entomologist **84** pp. 83–84.

Notes and records of Indiana Odonata 1941–1950, MONTGOMERY Proc. Indiana Acad. Sci. **60** pp. 205–210.

Prodrome for manual of the dragonflies of N. America, NEEDHAM Trans. Amer. ent. Soc. **77** pp. 21–62, 3 pls. 9 figs.

Notes on Italian Odonata, NIELSEN & CONCI Boll. Soc. ent. ital. **81** pp. 76–79.

Dragonflies of southern Africa, PINHEY Transv. Mus. Mem. no. 5, 335 pp. 30 pls.

Odonata of Port. Guinea, SCHMIDT Arq. Mus. Bocage **20** pp. 125–200, 29 figs.

Some Odonata from Lower Saxony, SCHUMANN Beitr. Naturk. Niedersachs. no. 2 1948 pp. 27–32; **4** 1951 pp. 116–120.

Odonata of northern Canada survey, WALKER Canad. Ent. **83** pp. 269–279.

Zygoptera.

Secondary sexual characters on legs of Zygoptera, ST. QUENTIN Ent. News **62** pp. 105–108.

Zygoptera of Madagascar, SCHMIDT Mém. Inst. sci. Madagascar **6A** 1951 pp. 115–283, 89 figs.

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Sapho ciliata nymph p. 99 fig., FRASER Rev. franç. Ent. **18.**

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Libellago dispar **subsp. n.** *fraseri* Port. Guinea p. 161 fig., SCHMIDT Arq. Mus. Bocage **20.**

LESTIDAE.

Outline of new classification of Lestidae, FRASER Ent. News **62** pp. 61–69, 4 figs.

Chalcolestes silvaticus **sp. n.** Madagascar p. 129 figs., SCHMIDT Mém. Inst. sci. Madagascar **6A.**

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Paralestes **gen. n.** for *Lestes praemorsus* Selys (type), *L. uncifer* Karsch, *L. tridens* McL., *L. simulatrix* M., *L. orientalis* Hag., *L. elatus* S., *L. viridulus* Ramb. p. 124; *simulatrix* (=*pruinescens* Mart.) p. 126 figs., SCHMIDT Mém. Inst. sci. Madagascar **6A.**

Sinhalestes **gen. n.** for *Lestes orientalis* Hag. p. 69, FRASER Ent. News **62.**

Tricholestes **gen. n.** for *Lestes risi* Van der Weele p. 67 fig., FRASER t.c.

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Stenocnemis pachystigma see *Coeliccia.*

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Key to nymphs of Coenagriidae common in Ireland, MACNEILL Irish Nat. J. **10** 1950 pp. 32–38, 1 pl.

Agriocnemis key to African spp. p. 131, SCHMIDT Arq. Mus. Bocage **20.**

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DERMAPTERA.

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Dermaptera of France, CHOPARD Fn. de France **56** pp. 317–337, 29 figs.

List of Dermaptera of Austria, EBNER Verh. zool.-bot. Ges. Wien **92** pp. 164–165.

Dermaptera of Belg. Congo, I, Pygidicranidae, HINCKS Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **8** 50 pp. 36 figs.

Dermaptera of Swiss National Parks, HOFMÄNNER Ergebn. wiss. Unters. schweiz. NatParks. (N.F.) **3** no. 25 pp. 249–250.

Trinidad earwigs, KEVAN Ann. Mag. nat. Hist. (12) **4** pp. 249–257.

Dermaptera of Zavattari's Expedition to Sagan-Omo, MENOZZI Riv. Biol. colon. **10** pp. 75–76.

Dermaptera of Hissar Valley, Tadzhikistan, MISHCHENKO Trud. zool. Inst. Akad. Nauk SSSR **8** 1949 pp. 740–741.

Some Moroccan Dermaptera in Spanish Entom. Inst., MORALES AGACINO Eos **27** pp. 257–263.

Dermaptera collected in Angola, MORALES AGACINO Publ. cult. Comp. Diam. Angola no. 11 pp. 37–47, 2 figs.

Dermaptera of Latvia, PRINCIS Univ. Riga Wiss. Abh., Kl. naturw. **1** 1943 pp. 90–91, 1 map.

Anechura bipunctata distribution, Spain pp. 275–278 fig., MORALES AGACINO Bol. Soc. esp. Hist. nat. **48** 1950 secc. Biol.

Auchenomus pandanicola **sp. n.** Madagascar p. 146 figs., CHOPARD Mém. Inst. sci. Madagascar **5A.**

Chaetospania nossibiana **sp. n.** Madagascar p. 145 figs., CHOPARD t.c.

Diplatys kivuensis **sp. n.** Belg. Congo p. 23 figs., HINCKS Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **8.**

Euborellia cincticollis characters p. 3 figs., TING Bull. Dep. Agric. Cal. **40.**

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ORTHOPTERA.

Orthoptera of Sakhalin & Kurile Is., BEĬ-BIENKO Ent. Obozr. **30** 1949 pp. 309–317.

Orthoptera of Belgium, CARPENTIER Bull. Ann. Soc. ent. Belg. **87** pp. 100–105.

Orthopteroidea of France, CHOPARD Fn. de France **56** [3+] 359 pp. 532 figs.

List of Orthoptera of Austria, EBNER Verh. zool.-bot. Ges. Wien **92** pp. 143–164.

First report on Opinion 124, the sub-divisions of "*Gryllus*" by L. 1758, HEMMING Bull. zool. Nomen. **2** pp. 112–118.

Orthoptera of Swiss National Parks, HOFMÄNNER Ergebn. wiss. Unters. schweiz. NatParks. (N.F.) **3** no. 25 pp. 250–277.

Orthoptera of Tadzhikistan collected in 1934, MIRAM Trud. zool. Inst. Akad. Nauk SSSR **8** 1949 pp. 714–719, 3 figs.

Orthoptera of Hissar Valley, Tadzhikistan, MISHCHENKO Trud. zool. Inst. Akad. Nauk SSSR **8** 1949 pp. 741–748.

Orthoptera of Latvia, PRINCIS Univ. Riga Wiss. Abh., Kl. naturw. **1** 1943 pp. 65–90, 1 map.

Orthoptera of S.E. Europe and the Near East, RAMME Mitt. zool. Mus. Berl. **27** pp. 1–431, 39 pls. (12 col.) 134 figs., 3 maps. Errata **28** 1952 p. 151.

Orthoptera of Silesia, VOJTEK Přír. Sborn. Ostraw. Kraje **10** 1949 pp. 319–337, 1 fig.

BLATTIDAE.

Blattids in Copenhagen zool. Mus., PRINCIS Spolia zool. Mus. Hauniensis **12** 72 pp. 6 pls.

Classification of Blattariae by their wings, REHN Mem. Amer. ent. Soc. no. 14, 134+3 pp. 13 pls. 5 diagr.

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Praying Mantids of U.S.A., GURNEY Rep. Smithson. Instn **1950** pp. 339–362, 9 pls.

Mantodea of Zavattari's Expedition to Sagan-Omo, LA GRECA Riv. Biol. colon. **10** pp. 83–102, 1 pl. 3 figs.

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Revision of Australian Grylloidea, Chopard Rec. S. Aust. Mus. **9** pp. 397–533, 89 figs.

Gryllids of Belg. Congo, Chopard Rev. Zool. Bot. afr. **44** pp. 297–312, 5 figs.

Acheta assimilis, *domesticus* names discussed p. 611, Gurney J. econ. Ent. **44.**

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Criticism of Zeuner's "Classification of Decticinae", RAMME Mitt. zool. Mus. Berl. **27** pp. 224–260, figs.

Anadolua schwarzi ♀ p. 362 figs., RAMME Mitt. zool. Mus. Berl. **27.**

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Uv.); *natoliae* Serv. (=*brunneri* Sauss., *rodiensis* Salfi) p. 176; *epippigera* F.-W. (=*syriaca* I. Bol., *monstrosa* Kr.) p. 177; *uvarovi* **sp. n.** Palestine p. 190 figs., RAMME Mitt. zool. Mus. Berl. **27**.

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Catalogue of named Tetrigidae in Colombo Museum, with records of distribution, SANDRASAGARA Rec. Indian Mus. **47** 1950 pp. 135–141.

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Use of proventriculus in taxonomy, JUDD Canad. J. Zool. **29** pp. 219–223, 2 figs.

Catalogue of named Eumastacidae in Colombo Museum, with records of distribution, SANDRASAGARA Rec. Indian Mus. **47** 1950 p. 142.

Gomphomastax clavata **subsp. n.** *alticola* N. Kirghizia, S.E. Kazakhstan p. 125, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38**.

Malagassa appendiculata **sp. n.** Madagascar p. 153 figs., CHOPARD Mém. Inst. sci. Madagascar **5A**.

Seyrigella **gen. n.**, *notabilis* **sp. n.** Madagascar p. 150 figs., CHOPARD t.c.

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Acridoids of USSR & neighbouring countries, pts. 1 and 2, BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38** 378 pp., 816 figs., **40** 667 pp., 1318 figs.

Alate forms of usually brachypterous African Pyrgomorphinae, BURTT Proc. R. ent. Soc. London (A) **26** pp. 64–66, 1 pl.

Preliminary records of some Acridoidea from remote parts of East Africa, KEVAN Ann. Mag. nat. Hist. (12) **4** pp. 713–718.

Tribal position of certain genn. of Pyrgomorphinae, REHN Ent. News **62** pp. 241–244.

Catalogue of named Acrididae in Colombo Museum, with records of distribution, SANDRASAGARA Rec. Indian Mus. **47** 1950 pp. 142–157.

Revision of Acridoidea of Indo-Malaya & adjacent regions (keys p. 43), WILLEMSE Publ. natuurh. Genootsch. Limburg **4** pp. 41–114, 64 figs.

Acrida L. 1758 proposal to Int. Comm. zool. Nomen. to validate as subgen. pp. 107–108, GURNEY Bull. zool. Nomen. **2**; UVAROV p. 111; GÜNTHER op. cit. **6** p. 84.—*A.* criticism of Dirsh's revision of W. Palaearctic spp. pp. 383–385 figs., RAMME Mitt. zool. Mus. Berl. **27.**—*A. kozlovi* N. China, *granulata* Japan, *incallida* Maritime Province, Manchuria p. 400 **spp. n.**; *koreana* **subsp. n.** *antennata* Sakhalin, Japan p. 401 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

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Chlorizeina togulata **sp. n.** Burma p. 2 figs., REHN Notulae Naturae no. 238.

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Crotalacris **subgen. n.** (type *rubicundus* Germ.) see *Stenobothrus.*

Cyphocerastis Karsch (=*Kivuia* Rehn) p. 77 figs., Dirsh Proc. R. ent. Soc. Lond. (B) **20.**

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Dicranostomus nitidus characters p. 548 figs., Gurney Ann. ent. Soc. Amer. **43.**

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Eleutherotheca burtti **sp. n.** Tanganyika p. 78 figs., Dirsh Proc. R. ent. Soc. Lond. (B) **20.**

Epacromius tergestinus **subsp. n.** *extimus* N. China p. 566 fig., Beĭ-Bienko in Beĭ-Bienko & Mishchenko Opred. Faune SSSR **40.**

Epipodisma **gen. n.** for *Cophopodisma pedemontana* Br. v. W. (type), *turcica* Rme. p. 62 figs., Ramme Mitt. zool. Mus. Berl. **27.**

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Eremopeza saussurei **subsp. n.** *cyanea* E. Persia p. 295 fig., Beĭ-Bienko in Beĭ-Bienko & Mishchenko op. cit. **38.**

Eremoscopus **gen. n.**, *oculatus* **sp. n.** W. China p. 571 figs., Beĭ-Bienko in Beĭ-Bienko & Mishchenko op. cit. **40.**

Esfandiaria **gen. n.**, *obesa* **sp. n.** Iran p. 114 fig., Popov Proc. R. ent. Soc. Lond. (B) **20.**

Eumetrioptera characters, key p. 327 ; *crassa* Uzbekistan p. 330, *obuchovae* S.E. Kazakstan p. 331 **spp. n.** figs., Mishchenko Ent. Obozr. **30** 1949.

Eusphingoderus **gen. n.** for *Sphingonotus predtetshenskii* Mistsh. p. 203 fig., BEĬ-BIENKO Ent. Obozr. **31** 1950.

Eusphingonotus **gen. n.** for *Sphingonotus japonicus* Sauss. p. 202 figs., BEĬ-BIENKO t.c.

Exopropacris **gen. n.** p. 75, *sudanica* **sp. n.** Sudan, Belg. Congo p. 77 figs., DIRSH Proc. R. ent. Soc. Lond. (B) **20.**

Formosacris **gen. n.** for *Parapleurus koshunensis* Shiraki p. 76 figs., WILLEMSE Publ. natuurh. Genootsch. Limburg **4.**

Gastrimargus sulphureus **sp. n.** Kashmir, Punjab, Pakistan p. 580 figs., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.** —*G. morio, affinis* see *Locusta migratoria migratorioides.*

Gelastorrhinus tonkinensis **sp. n.** Tonkin p. 106 figs., WILLEMSE Publ. natuurh. Genootsch. Limburg **4.**

Glyphotmethis **gen. n.** p. 313 for *Asiotmethis holtzi* Wern. (with subsp. *dimorphus* Uv.) p. 314, *A. pulchripes*, U., *A. escherichi* Kr. (type) (with subspp. *inermis* U., *adaliae* U., *ovipennis* U.) p. 315, A. *heldreichi* Br.–W. p. 316; *holtzi* **subsp. n.** *extimus* Asia Minor p. 314; *heldreichi* **subsp. n.** *macedonicus* Greece p. 316, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Glyptobothrus **subgen. n.** (type *binotatus* Charp.) see *Chorthippus.*

Gomphocerus kudia **subsp. n.** *sachalinensis* Sakhalin p. 486; *sibiricus* **subspp. n.** *turkestanicus* Alatau, Kirghiz, Turkestan & Alai Mts., Pamirs, W. China p. 488, *transcaucasicus* S. Armenia, E. Turkey, *turcicus* Asia Minor p. 489 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO op. cit. **40.**—*G. sibiricus* subspp. discussed p. 393 figs., RAMME Mitt. zool. Mus. Berl. **27.**

Granulodes **gen. n.**, *beieri* **sp. n.** Anatolia p. 288 figs., RAMME t.c.

Heteropternis robusta **sp. n.** W. China p. 573 figs., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Indomerus **gen. n.** p. 599, *noxius* **sp. n.** India p. 601 figs., DIRSH Bull. ent. Res. **41.**

Iranacris **gen. n.**, *dentatus* **sp. n.** W. Persia p. 364, MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Iranotmethis cyanipennis **subspp. n.** *kurdus* p. 299, *cyanipes*; *luteipes* **sp. n.** p. 300 Persia figs., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO t.c.

Kivuia see *Cyphocerastis.*

Locusta migratoria migratorioides R. & F. (=*Gastrimargus morio* Sj., *affinis* Sj.); *m. m.* ph. *solitaria* (=*danica* L.); *m. rossica* Uv. & Zov. the Central Russian subsp. p. 1, UVAROV Bull. Office nat. Anti-acrid. no. 1.

Megaphlaeoba **gen. n.**, *crassiceps* **sp. n.** Sumbawa I. p. 89 figs., WILLEMSE Publ. natuurh. Genootsch. Limburg **4.**

Melanoplus frigida see *Bohemanella.*

Mesasippus scitus p. 498, *barsukiensis* p. 499 **spp. n.**; *arenosus* **subsp. n.** *zaisanicus* p. 500; *kozhevnikovi* **subspp. n.** *iliensis*, *robustus* (also W. China) p. 501 Kazakhstan figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Metromerus coelesyriensis **subspp. n.** *intricatus* S. Turkmenistan, Persia, Pakistan p. 260, *hissaricus* Tajikistan p. 261 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO op. cit. **38.**

Microcatantops brachypterus Ramme (=*Catantops* (*M.*) *emalicus* Kev.) p. 717 (note), KEVAN Ann. Mag. nat. Hist. (12) **4.**

Mistshenkoa **gen. n.** for *Sphingonotus arabicus* Mistsh. p. 202 fig., BEĬ-BIENKO Ent. Obozr. **31** 1950.

Nocaracris W. Asian spp. pp. 298–304; *cyanipes* **subspp. n.** *ornatus* Caucasus, *tristis*; *tibialis* Armenia p. 298, *pontica*, *tauricola* p. 299, *sureyana* p. 302, *cinerascens*, *tecticollis* p. 303, *sabulosa* p. 304 Anatolia, *subrubrata* Syria p. 301 **spp. n.**; *burri* **subsp. n.** *obscurata* p. 300; *bodenheimeri* **f. n.** *flavipes* p. 301 Anatolia figs., RAMME Mitt. zool. Mus. Berl. **27.**—*N. curtus* **sp. n.** Georgia p. 350 fig., MISHCHENKO in

Beĭ-Bienko & Mishchenko Opred. Faune SSSR **38.**—*N. latipes* see *Paranocacris ; margaritae* (*armeniaca*) see *Paranothrotes.*

Nocarodes W. Asian spp. pp. 291–298 ; *armenus* Persia, Armenia p. 291, *transcaucasicus* Transcaucasia p. 292, *ebneri* Persia p. 296, *niethammeri* Anatolia p. 297 **spp. n.** figs., Ramme Mitt. zool. Mus. Berl. **27.**—*N. urmianus* **subsp. n.** *carinatus* ; *specialis* p. 357, *scabiosus* p. 359, *nanus* (also S.W. Azerbaijan) p. 361, *corrugatus, crispus, humerosus, gibbosus* p. 362 Persia, *fragosus* p. 357, *nodosus* p. 359 Armenia, *aserbus* N.E. Turkey p. 358 **spp. n.**; *serricollis* **subsp. n.** *loripes* Dagestan p. 361 figs., Mishchenko in Beĭ-Bienko & Mishchenko Opred. Faune SSSR **38.** —*N. rubripes, bodenheimeri, bulgaricus, rimansonae, tridentatus* see *Paranocacris* ; *tölgi* see *Ebnerodes* ; *gotvendicus* see *Nocaropsis* ; *fieberi* see *Ananothrotes* ; *apicalis, schelkovnikovi, opacus* var. *nigripes* see *Paranothrotes opacus* ; *znojkoi* see *Znojkiana* ; *voronovi* see *Araxiana.*

Nocaropsis **gen. n.** for *Nocarodes gotvendicus* Bol. ; *demawendi, iranicus* p. 289, *elbursianus* p. 290 **spp. n.** Persia figs., Ramme Mitt. zool. Mus. Berl. **27.**

Notostaurus albicornis **subspp. n.** *rubripes* W. Hissar Mts., *robustus* N. Afghanistan p. 446 ; *popovi* **subsp. n.** *comtulus* S. Tajikistan p. 447 figs., Mishchenko in Beĭ-Bienko & Mishchenko Opred. Faune SSSR **40.**

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Oedipoda miniata **subsp. n.** *atripes* Centr. Asia, Afghanistan p. 593 figs., Beĭ-Bienko in Beĭ-Bienko & Mishchenko t.c.

Omocestus haemorrhoidalis **subsp. n.** *ciscaucasicus* N. Caucasus p. 476 ; *znojkoi* **sp. n.** Azerbaijan p. 477 figs., Mishchenko in Beĭ-Bienko & Mishchenko t.c.

Oreoptygonotus uvarovi see *Anaptygus.*

Oronothrotes **gen. n.**, *furvus* **sp. n.** Anatolia p. 520 figs., Mishchenko C.R. Acad. Sci. URSS (N.S.) **77.**

Oropodisma macedonica **sp. n.** Macedonia p. 110 figs., Ramme Mitt. zool. Mus. Berl. **27.**

Oxya sinuosa Korea p. 167, *maritima* lower Amur valley, Maritime Province p. 169 **spp. n.** figs., Mishchenko in Beĭ-Bienko & Mishchenko Opred. Faune SSSR **38.**

Paraconophyma nana **sp. n.** Iran p. 119 fig., Popov Proc. R. ent. Soc. Lond. (B) **20.**

Paracoptacra cauta Karsch (= *sjöstedti* Ramme) p. 78, Dirsh Proc. R. ent. Soc. Lond. (B) **20.**

Paranocacris **gen. n.** p. 350 for *Nocarodes rubripes* F.–W. p. 351, *N. bodenheimeri* Uv. p. 352, *N. bulgaricus* Ebn. & Drenow., *N. rimansonae* Uv. p. 353, *N. tridentatus* Stshelk. p. 354, *Nocaracris latipes* Uv. p. 352 ; *granosus* W. Georgia, *rigidus* S. Asia Minor p. 351, *acinosus, elegans* N.E. Turkey **spp. n.**; *rimansonae* **subsp. n.** *ventosus* Georgia p. 354 figs., Mishchenko in Beĭ-Bienko & Mishchenko Opred. Faune SSSR **38.**

Paranocarodes spp. from Anatolia and W. Asia pp. 279–288 ; *straubei* **subsp. n.** *insularis* p. 280 ; *fieberi* **subsp. n.** *mytilenensis* p. 284 Mytilene; *cilicicus, paphlagonicus* p. 281, *tolunayi* p. 282, *brevipes* p. 284, *atympanicus* Anatolia, *aserbeidshanicus* Azerbaijan p. 285 **spp. n.** figs., Ramme Mitt. zool. Mus. Berl. **27.**—*P. lubricus* p. 517, *instans* p. 518 **spp. n.** Anatolia figs., Mishchenko C.R. Acad. Sci. URSS (N.S.) **77.**

Paranothrotes **gen. n.**, *ocellatus* p. 519, *tenuicornis* (type) (with **subsp. n.** *sordidus*), *citimus* p. 520 Iran, *eximius* E. Turkey p. 519, **spp. n.**; also includes *tölgi* Ebn., *gotvendicus* Bol., *opacus* Br.–W. ; *gotvendicus* **subsp. n.** *rectus* Iraq, Iran p. 519 ; *opacus* **subsp. n.** *ornatus* Iran p. 520 ; *apicalis* Bol., *schelkovnikovi* Uv., *opacus* var. *nigripes* Stshelk. (from *Nocarodes*), *margaritae* Mir. (from *Nocaracris*) subspp. of *opacus* ; *o. margaritae* Mir. (=*N. armeniaca* B.–B.) p. 519 figs., Mishchenko t.c.

Paraphlaeobida **gen. n.** p. 279, *gracilis* **sp. n.** India p. 280, WILLEMSE Ent. Ber., Amst. **13.**

Parapleurus koshunensis see *Formosacris.*

Pararcyptera microptera **subspp. n.** *insularis* Is. in Okhotsk Sea p. 432, *altaica* Altai region p. 433 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Parasphena manowensis **sp. n.** Tanganyika p.16 figs., KEVAN Notul. ent. **31.**—*P. albini* see *Pyrgomorphella.*

Paregnatius salavatiani **sp. n.** Iran p. 113 figs., POPOV Proc. R. ent. Soc. Lond. (B) **20.**—*P. saltator* **sp. n.** E. Persia p. 373, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Pezotmethis nigrescens **subspp. n.** *subalatus, hemipterus* p. 312, *desertus* p. 313 S. Kazakhstan, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO t.c.

Phaeonotus **gen. n.** p. 110, *pulcher* **sp. n.** Iranian Baluchistan p. 111 figs., POPOV Proc. R. ent. Soc. Lond. (B) **20.**

Phlaeoba henflingi see *Rugophlaeoba.*

Phlocerus zaitzevi **subsp. n.** *egregius* N. Dagestan p. 484 fig., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Phymateus viridipes early stages p. 10 figs., DE LOTTO Riv. Agric. subtrop. **65.**

Physocrobylus **gen. n.** p. 74, *burtti* **sp. n.** Tanganyika p. 75 figs., DIRSH Proc. R. ent. Soc. Lond. (B) **20.**

Podisma kurilensis **sp. n.** Kuriles p. 316 fig., BEĬ-BIENKO Ent. Obozr. **30** 1949.—*P.* and allied Palaearctic genn. revision pp. 55–67 ; *teberdina* **sp. n.** Caucasus p. 57 figs., RAMME Mitt. zool. Mus. Berl. **27.**

Podismacris B.–B. raised to gen. and not subgen. of *Podismopsis* p. 20, RAMME t.c.

Podismopsis transsylvanica **sp. n.** Rumania p. 74 figs., RAMME t.c.—*P.* (s. str.) *poppiusi* **subsp. n.** *femoralis* S.W. Siberia, Altai Mts. p. 423 ; *frontalis* S. Bashkir p. 424, (*Podismacris*) *insularis* (with **subsp. n.** *shantariensis*) Is. in Okhotsk Sea p. 426 **spp. n.** figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Pseudoceles dirshi **sp. n.** Iran p. 112 figs., POPOV Proc. R. ent. Soc. Lond. (B) **20.**—*P. oedipodioides, uvarovi, turcicus, popovi* see *Thalpomena.*

Pseudonothrotes **gen. n.** p. 518, *levis* **sp. n.** Turkey p. 519 figs., MISHCHENKO C.R. Acad. Sci. URSS (N.S.) **77.**

Ptygippus **gen. n.** p. 547, *brachypterus* **sp. n.** S.W. Georgia p. 548 fig., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Ptygonotus semenovi **subsp. n.** *antennatus* China p. 428 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO t.c.

Pycnosarcus atavus redescription p. 137, LIEBERMANN Rev. Soc. ent. argent. **15.**

Pyrgomorpha conica **subsp. n.** *deserti* Azerbaijan, Armenia, Centr. Asia, Kazakhstan, Persia, N. Afghanistan p. 272 fig., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Pyrgomorphella predtetshenskii **sp. n.** N.W. Persia p. 274, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO t.c.—*P. arachidis* **sp. n.** Tanganyika p. 41 ; *albini* Chop. (=*variegata* Key) from *Parasphena* p. 43 figs., DIRSH Bull. ent. Res. **42.**

Rammeacris **gen. n.** p. 65 for *Ceracris gracilis* Ramme p. 66 figs., WILLEMSE Publ. natuurh. Genootsch. Limburg **4.**

Rugophlaeoba **gen. n.** p. 87 for *Phlaeoba henflingi* Willemse p. 88 figs., WILLEMSE t.c.

Savalania **gen. n.** p. 354, *pulla* **sp. n.** N.W. Persia p. 355 fig., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Saxetania **gen. n.** for *Tropidauchen sabulosa* Uv., *T. alexandrovi* B.–B., *T. elbursiana* Rme., *escalerai* Bol., *paramonovi* Dirsh, *cultricollis* Sauss., *uvarovi* Mish., *miramae* Mish. ; *onerosa, muricata* (with **subsp. n.** *femoralis*) p. 739, *decumana* (type), *spinosa, irrasa* p. 740 N. Iran, *enoda, bactriana* S. Uzbekistan p. 739, *scutata* S.

Turkmenia p. 740 **spp. n.**; *paramonovi* **subsp. n.** *fuscipes* Turkmenistan p. 739; *cultricollis* **subspp. n.** *tumulosa, gibbosa* S. Turkmenia p. 740 figs., MISHCHENKO C.R. Acad. Sci. URSS (N.S.) **77.**

Sinipta key to S. American spp. p. 7; *maldonadoi* **sp. n.** Bolivia p. 8 figs., LIEBERMANN An. Soc. ci. argent. **152.**

Sphingoderus **gen. n.** for *Sphingonotus carinatus* Sauss. p. 203 figs., BEĬ-BIENKO Ent. Obozr. **31** 1950.

Sphingonotus spp. of USSR p. 199, BEĬ-BIENKO t.c.—*S. pamiricus* **subsp. n.** *coeruleus* E. Tajikistan p. 615; *zebra* **subsp. n.** *flavipes* E. Uzbekistan p. 616; *turcmenus* **sp. n.** W. Turkmenistan p. 617; *maculatus* **subspp. n.** *petraeus* (also N. Kirghizia), *extimus* E. Kazakhstan p. 618; *rubescens* **subsp. n.** *subfasciatus* E. Kirghizia p. 619 figs., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**—*S.* grouping of spp. discussed pp. 405–407; *carinatus* **subsp. n.** *eshrewi* p. 407; *kurmanus* Anatolia p. 408, *aserbeidshanicus* Azerbaijan p. 409 **spp. n.** figs., RAMME Mitt. zool. Mus. Berl. **27.**—*S. predtetshenskii* see *Eusphingoderus*; *uvarovites* see *Asphingoderus*; *carinatus* see *Sphingoderus*; *arabicus* see *Mistshenkoa*; *japonicus* see *Eusphingonotus.*

Sphodromerus atakanus **sp. n.** Egypt p. 255 figs., RAMME Bull. Soc. Fouad ler Ent. **35.**

Sphodronotus grandis **sp. n.** Iran and Iranian Baluchistan p. 120 fig., POPOV Proc. R. ent. Soc. Lond. (B) **20.**

Stauroderus scalaris **subsp. n.** *demavendi* Iran p. 110 fig., POPOV t.c.

Stenobothrus (*Crotalacris* **subgen. n.** p. 280), CHOPARD Fn. de France **56.**—*S. werneri* **subsp. n.** *iranicus* Persia p. 385; *nigromaculatus* subsp. *transcaucasicus* further description p. 386 figs., RAMME Mitt. zool. Mus. Berl. **27.**—*S.* (*Stenobothrodes*) *tadzhicus* **sp. n.** N. Tajikistan p. 468, MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **40.**

Strumiger desertorum **subsp. n.** *calcaratum* Kazakhstan, Uzbekistan, Turkmenistan p. 328, BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO op. cit. **38.**

Thalpomena scope discussed pp. 402–403; *libyana* **sp. n.** Libya p. 403 (note); *uvarovi* Dirsh, *obscura* Uv. reduced to subspp. of *oedipodioides* (from *Pseudoceles*) p. 403; *turcicus* Dirsh (from *Pseudoceles*) (with **f. n.** *lactea* Anatolia p. 405) reduced to subsp. of *ledereri*; *popovi* Dirsh (from *Pseudoceles*) reduced to subsp. of *persa* p. 404 figs., RAMME Mitt. zool. Mus. Berl. **27.**—*T. coerulescens* see *Crinita.*

Thisoicetrus theodori **subsp. n.** *delicatus* S. Turkmenistan, N. Persia p. 266 figs., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Thrinchus turcmenus W. Turkmenistan p. 325, *aralensis* S.W. Kazakhstan p. 326, *desertus* Centr. Asia p. 327 **spp. n.**; *arenosus* **subsp. n.** *extimus* p. 326 Kazakhstan figs., BEĬ-BIENKO in BEĬ-BIENKO & MISHCHENKO t.c.

Tropidauchen serratum, cristatum p. 737, *flavipes, predtetshenskii* p. 738 **spp. n.** Iran figs., MISHCHENKO C.R. Acad. Sci. URSS (N.S.) **71.**—*T. sabulosa, alexandrovi, elbursiana, escalerai, paramonovi, cultricollis, uvarovi, miramae* see *Saxetania.*

Valanga nigricornis melanocornis f. *zehntneri* Zehnt. (nec Krauss) ? solitary phase pp. 349–350, ROEPKE Ent. Ber., Amst. **13.**

Vosseleriana scope p. 202, BEĬ-BIENKO Ent. Obozr. **31** 1950.

Wiltshirella **gen. n.** p. 115, *fusiformis* **sp. n.** Iran p. 116 figs., POPOV Proc. R. ent. Soc. Lond. (B) **20.**

Xerohippus anatolicus **sp. n.** Anatolia p. 399 figs., RAMME Mitt. zool. Mus. Berl. **27.**

Znojkiana **gen. n.** for *Nocarodes znojkoi* Mir. p. 348 fig., MISHCHENKO in BEĬ-BIENKO & MISHCHENKO Opred. Faune SSSR **38.**

Zubovskya parvula **subsp. n.** *mandshurica* Manchuria p. 64 figs., RAMME Mitt. zool. Mus. Berl. **27.**

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Timema knulli **sp. n.** California p. 172 fig., STROHECKER Ann. ent. Soc. Amer. **44.**

Apterygota.

Apterygota of Czechoslovakia, PACLT Ent. Listy **14** pp. 161–164.

Apterygota of Poland, STACH Fn. słodkowodna polski no. 18, 126 pp. 71 figs.

COLLEMBOLA.

Cavernicolous Collembola of E. Pyrenees, DELAMARE-DEBOUTTEVILLE Arch. Zool. exp. gén. **87** (Notes et Rev.) pp. 156–161, 22 figs.

Cavernicolous Collembola of Ardèche, DELAMARE - DEBOUTTEVILLE Bull. Soc. linn. Lyon **20** pp. 116–120, 16 figs.

Proposal to Int. Comm. zool. Nomen. for validation of 13 generic names in Collembola, GISIN Bull. zool. Nomen. **2** pp. 56–58.

Monograph of Collembola of New York State, MAYNARD 1951 xxii & 339 pp. 37 pls. (4 col.) 1 col. frontisp. 4 figs.

Collembola collected in forest district Łobodno, Poland, PRAPORT Fragm. faun. Mus. zool. polon. **6** pp. 135–148.

Keys to famm. & genn. (up to and incl. 1949) and bibliography of Collembola, SALMON Zool. Publ. Victoria Univ. Coll. **8** 82 pp.

Acanthocyrtus hamatus **sp. n.** Singapore p. 134 figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Aethiopella characters; *tournieri* **sp. n.** Ivory Coast p. 282 figs., DELAMARE - DEBOUTTEVILLE Bull. Mus. Hist. nat., Paris (2) **23.**

Aethiopellina **gen. n.**, *proboscina* (type), *bimaculata* **spp. n.** Ivory Coast p. 284 figs., DELAMARE-DEBOUTTEVILLE t.c.

Agreniella see *Hypogastrura.*

Anurida (*Anuridella*) *germanica* **sp. n.** Sylt, Germany p. 58, GISIN Kieler Meeresforsch. **8.**

Anurodes see *Aphromma.*

Aphromma MacG. (=*Anurodes* Bagn.) p. 14, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Aphysa eburnea **sp. n.** Ivory Coast p. 1075 figs., DELAMARE-DEBOUTTEVILLE Bull. Inst. franç. Afr. noire **13.**

Architomocerura litsteriana characters p. 199, GOTO & HUGHES Ent. mon. Mag. **87.**

Arlesiella **gen. n.**, *saprophila* **sp. n.** Ivory Coast p. 285 fig., DELAMARE-DEBOUTTEVILLE Bull. Mus. Hist. nat., Paris (2) **23.**

Bagnallella **gen. n.** for *Folsomia sedecimoculata* Salm. & spp. with 8 ocelli to each side p. 19, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Beckerellodes see *Choreutinula.*

Bourletiella (*B.*) *rustica* p. 248, (*B.*) *savona*, (*B.*) *juanitae* p. 249, (*Deuterosminthurus*) *fallonae* p. 255, (*D.*) *russata* p. 258, (*D.*) *aquatica* p. 259 **spp. n.** New York figs., MAYNARD Mon. Collemb. N.Y. State.

Bovicornia coronata secondary sexual characters pp. 237–244 figs., DELAMARE-DEBOUTTEVILLE Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Calobatella see *Calobatinus.*

Calobatinus Silv. (=*Calobatella* Börn. preocc.) p. 28, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Chaetoceras see *Plumachaetas.*

Choreutinula Paclt (=*Beckerellodes* Salm.), *libyca* P. (discussed p. 28 figs.) from *Mesachorutes* p. 133, GOTO Ent. mon. Mag. **87.**

Clavontella trispina **sp. n.** Singapore p. 132 figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Coelura see *Metacoelura.*

Dicyrtoma purpurata p. 280, *flammea* p. 281 **spp. n.** New York figs., MAYNARD Mon. Collemb. N.Y. State.

Dicyrtomina variabilis p. 278, *labellei* p. 279 **spp. n.** New York figs., MAYNARD t.c.

Entomobrya (*E.*) *brunneicapilla* **sp. n.** New York p. 142; (*E.*) *marginata* Tullb. (=*griseo-olivata* Pack., *m.* var. *pallida* Krausb.) p. 143; (*Entomobryoides* **subgen. n.** p. 161) figs., MAYNARD t.c.

Entomobryoides **subgen. n.** (type *purpurascens* Pack.) see *Entomobrya.*

Folsomia Willem (=*Litsteria* Bagn.) p. 19, SALMON Zool. Publ. Victoria Univ. Coll. **8.**—*F. hodgei* **sp. n.** p. 86; *diplophthalma* **f. n.** *anocellata* p. 87 New York figs., MAYNARD Mon. Collemb. N.Y. State. —*F. sedecimoculata* & other spp. see *Bagnallella.*

Friesea cauchoisi **sp. n.** Pyrenees p. 159 fig., DELAMARE-DEBOUTTEVILLE Arch. Zool. exp. gén. **87** (Notes et Rev.).

Hypogastrura Bourl. (=*Agreniella* Bagn., *Lubbockiella* B.) p. 11, SALMON Zool. Publ. Victoria Univ. Coll. **8.**—*H. densornata* p. 31, *macrospinata* p. 34, *gigas* p. 35, *ulinea* p. 38, *montana* p. 42, (*Schötella*) *banksi* p. 50 **spp. n.**; *packardi* **f. n.** *furcata* p. 33 New York figs., MAYNARD Mon. Collemb. N.Y. State.

Isotobryoides **gen. n.** (Entomobryidae), *ochracius* **sp. n.** New York p. 163 figs., MAYNARD t.c.

Katiannina **gen. n.** for *Sminthurus macgillivrayi* p. 242, MAYNARD & DOWNS in MAYNARD t.c.

Lepidocyrtus curvicollis **f. n.** *achromatis* p. 174; *finensis* p. 175, *aurantiacus* p. 176 (with **f. n.** *rubidus* p. 177), *alleganyensis* p. 180, *guthriei* p. 181 **spp. n.** New York figs., MAYNARD t.c.

Litsteria see *Folsomia.*

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Megalothorax characters p. 143, BARLET Bull. Ann. Soc. ent. Belg. **87.** —*M. aquaticus* **sp. n.** Tatra Mts. p. 102 fig., STACH Fn. Słodkowodna polski no. 18.

Mesachorutes libyca see *Choreutinula.*

Metacoelura **n. n.** for *Coelura* Schött nec Warren (Lep.) p. 23, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Metisotoma **gen. n.** (Isotomidae), *spiniseta* (type) p. 94, *capitona* p. 95 **spp. n.** New York figs., MAYNARD Mon. Collemb. N.Y. State.

Neanura MacG. (=*Lobella* Börn.) p. 14, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

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Paleotullbergia **gen. n.**, *primigenia* **sp. n.** Ivory Coast p. 280 figs., DELAMARE - DEBOUTTEVILLE Bull. Mus. Hist. nat., Paris (2) **23.**

Parasphyrotheca **gen. n.**, *subfusca* p. 138, *magnificata* (type), *fasciata* p. 140 **spp. n.** Singapore figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Parisotoma canituda **sp. n.** Singapore p. 133 figs., SALMON t.c.

Paronella beguei **sp. n.** Ivory Coast p. 1072, DELAMARE-DEBOUTTEVILLE Bull. Inst. franç. Afr. noire **13.**

Plumachaetas **n. n.** for *Chaetoceras* Hands. nec Warren (Lep.) p. 27, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Podura aquatica **f. n.** *mimula* New York p. 25 fig., MAYNARD Mon. Collemb. N.Y. State.

Protaphorura Abs. (=*Onychiuroides* Bagn.) p. 9, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Pseudachorudina bougisi **sp. n.** Pyrenees p. 56 fig., DELAMARE-DEBOUTTEVILLE Vie et Milieu **2.**

Pseudachorutes Tullb. (=*Sphragiphora* Houlb.) p. 16, SALMON Zool. Publ. Victoria Univ. Coll. **8.**—*P. aureofasciatus* **f. n.** *millsi* p. 58;

simplex **sp. n.** p. 59 New York figs., MAYNARD Mon. Collemb. N.Y. State.

Pseudachorutides see *Pseudanurida*.

Pseudanurida Schött (=*Pseudachorutides* Beck.) p. 12, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Pseudentomobrya proxima Fols. from *Pseudosinella* p. 131, SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Pseudosinella proxima see *Pseudentomobrya*.

Ptenothrix oswegatchiensis **sp. n.** New York p. 285; *frontalis* redescription p. 287 figs., MAYNARD Mon. Collemb. N.Y. State.

Ptenura abrupta **sp. n.** Singapore p. 137 figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Semicerura **gen. n.** (Isotomidae), *bishopi* **sp. n.** New York p. 99 figs., MAYNARD Mon. Collemb. N.Y. State.

Setogaster **n. n.** for *Trichogaster* Hands. preocc. in Dipt., Pisces etc. p. 25, SALMON Zool. Publ. Victoria Univ. Coll. **8.**

Sminthurides (*S.*) *aureolus*, (*S.*) *terrestris* **spp. n.** New York p. 213 figs., MAYNARD Mon. Collemb. N.Y. State.

Sminthurinus Börn. (=*Smynthurella* Houlb.) p. 29, SALMON Zool. Publ. Victoria Univ. Coll. **8.**—*S. radiculus* (with **ff. n.** *pictus* p. 224, *pallens*), *downsi* p. 225, *brunneus* p. 226, *latimaculosus* p. 231, *similitortus* p. 232, *megoculatus* p. 233 **spp. n.**; *quadrimaculatus* **ff. n.** *bimaculatus* p. 230, *latipictus* p. 231; *minutus* **f. n.** *bipunctatus* p. 235; *elegans* **f. n.** *cancellus* p. 238 New York figs., MAYNARD Mon. Collemb. N.Y. State.

Sminthurus adirondackus **sp. n.** New York p. 270; *argenteornatus* Banks (=var. *albescens* Banks) p. 271 figs., MAYNARD t.c.—*S. macgillivrayi* see *Katiannina*.

Smynthurella see *Sminthurinus*.

Sphragiphora see *Pseudachorutes*.

Sphyrotheca biniserrata **sp. n.** Singapore p. 138 figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

Tomocerus (*Pogonognathus*) *elongatus* p. 126, (*P.*) *nigritus* p. 130 **spp. n.** N. York figs., MAYNARD Mon. Collemb. N.Y. State.

Triacanthella proxima **sp. n.** Pyrenees p. 156 fig., DELAMARE-DEBOUTTEVILLE Arch. Zool. exp. gén. **87** (Notes et Rev.).

Trichogaster caerulea p. 134, *fasciata* p. 135, *pallida* p.136 **spp. n.** Singapore figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.** — See *Setogaster*.

Trogonella **gen. n.**, *pauliani* **sp. n.** Ivory Coast p. 1073 figs., DELAMARE-DEBOUTTEVILLE Bull. Inst. franç. Afr. noire **13.**

Typhlogastrura balazuci **sp. n.** S. France p. 116 figs., DELAMARE-DEBOUTTEVILLE Bull. Soc. linn. Lyon **20.**

Weberacantha **gen. n.** p. 24, *octa* **sp. n.** Alaska p. 25 figs., CHRISTIANSEN Psyche **58.**

Willowsia buskii **f. n.** *distincta* New York p.166 fig., MAYNARD Mon. Collemb. N.Y. State.

Xenylla malayana **sp. n.** Malaya p. 131 figs., SALMON Proc. R. ent. Soc. Lond. (B) **20.**

THYSANURA.

Thysanura of Afghanistan, WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950 pp. 139–155, 61 figs.

Key to genn. of Praemachilinae, WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950 p. 150.

Bakerella palaearctica **sp. n.** Afghanistan p. 141 figs., WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Campodea (*C.*) *meinerti* further description p. 89 figs., CONDÉ Bull. mens. Soc. linn. Lyon **20.**—*C.* (*C.*) *orédonensis* **sp. n.** Hautes Pyrenees p. 92 figs., CONDÉ Bull. Soc. ent. Fr. **56.**—*C.* (*C.*) *machadoi* **sp. n.** Portugal p. 3 figs., CONDÉ Mem. Estud. Mus. zool. Coimbra no. 204.

Ctenolepisma campbelli **sp. n.** Ohio p. 184 figs., BARNHART Ohio J. Sci. **51.**

Dilta heterotarsus see *Silvestrichilis*.

Forbicina hedini see *Haslundichilis*.

Haslundichilis **gen. n.** p. 148, *afghani* (type) **sp. n.** Afghanistan p. 151 ; *hedini* Silv. from *Forbicina* ; *steinitzi* Wygod. from *Praemachilis* p. 148 figs., WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Japyx solifugus discussed pp. 220–224 figs., PAGÉS Bull. Mus. Hist. nat., Paris (2) **23.**

Lepidocampa juradii var. *afra* characters p. 173, CONDÉ Trab. 2a Conf. int. Afr. ocid. Bissau 1947 **3** Sect. 2.

Lepisma saccharina morphology p. 253 fig., BARLET Bull. Ann. Soc. ent. Belg. **87.**

Machilanus tuxeni **sp. n.** Afghanistan p. 145, WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Machilis pulchra Tyrol p. 154, *ladensis* Switzerland p. 157 figs., JANETSCHEK Z. wien. ent. Ges. **35** 1950.—*M. steinböcki* **var. n.** *finitima* Italy ; *s.* var. *genuina* characters p. 16 figs., JANETSCHEK Z. wien. ent. Ges. **36.**

Metriocampa (*Natalocampa* **subgen. n.**) *princeps* **sp. n.** Natal p. 69 fig., CONDÉ Ann. Transv. Mus. **12.**

Natalocampa **subgen. n.** (type *princeps* sp. n.) see *Metriocampa*.

Praemachilis steinitzi see *Haslundichilis*.

Protjapyx maior characters p. 217 fig., PAGÉS Bull. Mus. Hist. nat., Paris (2) **23.**

Silvestrichilis **gen. n.** for *Dilta heterotarsus* Silv. p. 150, WYGODZINSKY Vidensk. Medd. Dansk naturh. Foren. **112** 1950.

Symphylurinus blanguernoni **sp. n.** Centr. Sahara p. 132 figs., PAGÉS Bull. Soc. ent. Fr. **56.**

PROTURA.

Protura of Banyuls-sur-Mer, CONDÉ Arch. Zool. exp. gén. **87** (Notes et Rev.) pp. 169–176, 2 figs.

Classification of Protura, CONDÉ Bull. Mus. Hist. nat., Paris (2) **23** pp. 121–125.

Protura of Morocco, CONDÉ Bull. Soc. Sci. nat. Maroc **30** pp. 165–173, 2 figs.

Acerentulus meridianus characters p. 171 ; *catalanus* **sp. n.** Pyrenees p. 174 fig., CONDÉ Arch. Zool. exp. gén. **87** (Notes et Rev.).

Eosentomon saharense **sp. n.** Morocco p. 167 fig., CONDÉ Bull. Soc. Sci. nat. Maroc **30.**

Protentomon (*Protentulus*) *atlanteum* **sp. n.** Morocco p. 169 fig., CONDÉ t.c.

FOSSILS.

Fossil insects of Tyan-Shan, BÈKKER-MIGDISOVA & MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **78** pp. 761–762.

Insects of Upper Jurasic, Montsech, CONDAL Notas Com. Inst. geol. España no. 23 pp. 12–16, figs.

Handbook of Palaeontology for beginners, pt. 1, Fossils, GOLDRING Handb. N.Y. St. Mus. no. 9 1950 394 pp. 97 figs.

Insects of old Tertiary of Havighout, ILLIES Z. Geschiebeforsch. **17** 1941 pp. 16–24, 8 figs.

Fossil insect beds of Belmont, New South Wales, KNIGHT Rec. Aust. Mus. **22** 1950 pp. 251–253, 1 map.

Some fossil insects from a Nevada hot-spring deposit, LA RIVERS Bull. S. Calif. Acad. Sci. **50** pp. 81–85, 3 pls.

Carboniferous insects of Gard and Loire, France, LAURENTIAUX Ann. Paléont. **36** 1950 pp. 63–84, 5 pls. 1 fig.

Carboniferous insects of Netherland Limburg, LAURENTIAUX Meded. geol. Stichting Geol. Bur. Heerlen (N.S.) no. 4 1950 pp. 13–20, 5 pls.

Permian insects near Sokolova, Kuznetzk Basin, S.W. Siberia, MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **79** pp. 149–151.

Elements of biostratonomy, MÜLLER Abh. dtsch. Akad. Wiss. Berlin, Kl. Math. allg. Naturw. **1950** no. 3 147 pp. 79 figs.

Coleoptera.

Coleoptera of Eocene, Geisel Valley, Germany, HAUPT Geologica no. 6 1950 vii & 168 pp. 113 figs.

Acassidites **gen. n.** (Cassididae) p. 155, *separandus* **sp. n.** Eocene, Germany p. 156 figs., HAUPT Geologica no. 6 1950.

Ancylochira agilis see *Eodromus*; *acroptera* see *Stizonotus*.

Anthracohelops **gen. n.** (Tenebrionidae), *gigas* (type) p. 128, *minutus* p. 129 **spp. n.** Eocene, Germany figs., HAUPT Geologica no. 6 1950.

Callistaspis **gen. n.** (Cassididae) p. 153, *punctatus* **sp. n.** Eocene, Germany p. 154 figs., HAUPT t.c.

Carabus (*Eucarabus*) *catenulatus* elytra, Austria, lower Pleistocene p. 117 figs., BERGER Anz. öst. Akad. Wiss. **87** 1950.

Caryosoma **gen. n.** (Tenebrionidae) p. 125, *rugosus* **sp. n.** Eocene, Germany p. 126 fig., HAUPT Geologica no. 6 1950.

Chlorodema **gen. n.** for *Iridotaenia primordialis* Pongr. p. 70 figs., HAUPT t.c.

Coroebus carneolus (*carniolicus*) see *Eoanthaxites*.

Cryptorrhynchites **gen. n.** (Curculionidae) p. 159, *sculpturatus* **sp. n.** Eocene, Germany p. 160 figs., HAUPT Geologica no. 6 1950.

Curculionites punctillatus **sp. n.** Eocene, Germany p. 161 fig., HAUPT t.c.

Cymatelytron **gen. n.** for *Helopidium rugosum* Handl. p. 20, HAUPT t.c.

Eoallognosis **gen. n.** (Tenebrionidae) p. 137, *undulatus* (type) p. 138, *punctulatus* p. 139, *limbellus* p. 140 **spp. n.** Eocene, Germany figs., HAUPT t.c.

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Mesomphalia gemmaspis Pongr. discussed p. 156 figs., HAUPT t.c.

Microjulodis **gen. n.** (Buprestidae) p. 64, *auratus* **sp. n.** Eocene, Germany p. 65 fig., HAUPT t.c.

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Hymenoptera.

Exetastes sp. forewing, leg, Austria, lower Pleistocene p. 118 figs., BERGER Anz. öst. Akad. Wiss. **87** 1950.

Lepidoptera.

Probable geologic time of appearance of Sphingids, CARY Trans. Amer. ent. Soc. **77** p.71.

Geisfeldiella **gen. n.**, *benkerti* **sp. n.** Lias, N. Franconia p. 61 figs., KUHN N. Jb. geol. Paläont. Stuttgart Monatsh. **2**.

Ijacossus **gen. n.** p. 1106, *suchanovae* **sp. n.** Jurassic, Irkutsk p. 1107 fig., BEKKER-MIGDISOVA C.R. Acad. Sci. URSS (N.S.) **71** 1950.

Plachutella ivanovi p. 1105, *sibirica* p. 1106 **spp. n.** Jurassic, Irkutsk figs., BEKKER-MIGDISOVA t.c.

Neuroptera.

Tychtobius **gen. n.** (Palaemerobiidae) *brevicostatus* **sp. n.** Permian, Kuznetzk, S.W. Siberia p. 151, MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **79**.

Megasecoptera.

Carboniferous Megasecoptera from Commentry, France, CARPENTER J. Paleont. **25** pp. 336–355, 1 pl. 11 figs.

Carbonoptera **gen. n.**, *furcaradii* **sp. n.** Carboniferous, Germany p. 111 figs., GUTHÖRL Palaeont. Z. **22** 1941.

Cyclocelis Brong. a valid gen. not synonym of *Sphecoptera*; *chatini* B. (=*brongniartiana* Handl.) p. 348, CARPENTER J. Paleont. **25**.

Mecoptera.

Choristopanorpa **gen. n.**, *bifasciata* **sp. n.** Middle Triassic, New South Wales p. 254 figs., RIEK Rec. Aust. Mus. **22** 1950.

Lithopanorpa kuznetzkiensis **sp. n.** Permian, Kuznetzk, S.W. Siberia p. 150, MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **79**.

Neorthophlebia abshirica **sp. n.** Liassic, Kirghiz, C. Asia p. 1009 fig., MARTUINOVA op. cit. (N.S.) **78**.

Permochorista veteratoria **sp. n.** Permian, Kuznetzk, S.W. Siberia p. 150, MARTUINOVA op. cit. (N.S.) **79**.

Petrochorista tychtensis **sp. n.** Permian, Kuznetzk, S.W. Siberia p. 151, MARTUINOVA t.c.

Diptera.

Eoboletina **gen. n.** p. 79, *gracilis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 80 fig., RODENDORF Trav. Inst. Paléont. Acad. Sci. URSS **13** 1946 no. 2.

Eohesperinus **gen. n.** p. 60, *martynovi* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 61 fig., RODENDORF t.c.

Eopachyneura **gen. n.**, *trisectoralis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 57 fig., RODENDORF t.c.

Eopleciidae **fam. n.** p. 43, RODENDORF t.c.

Fungivorites indistinctus **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 80 fig., RODENDORF t.c.

Lycoriomima **gen. n.** p. 62, *ventralis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 64 fig., RODENDORF t.c.

Lycoriomimetta **gen. n.**, *minor* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 69 figs., RODENDORF t.c.

Lycoriomimodes **gen. n.**, *deformatus* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 67 figs., RODENDORF t.c.

Lycorioplecia **gen. n.** p. 66, *elongata* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 67 figs., RODENDORF t.c.

Mesopleciella **gen. n.**, *minor* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 43 figs., RODENDORF t.c.

Mesosciophila **gen. n.** p. 76, *venosa* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 77 fig., RODENDORF t.c.

Mesosciophilodes **gen. n.** p. 77, *angustipennis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 78 fig., RODENDORF t.c.

Mimallactoneura **gen. n.** p. 72, *vetusta* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 73 fig., RODENDORF t.c.

Mimalycoria **gen. n.** p. 78, *allactoneuroides* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 79 fig., RODENDORF t.c.

Oligoneura evolution of wing and phylogeny pp. 1–108 figs., RODENDORF t.c.

Paralycoriomima **gen. n.** p. 64, *sororcula* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 65 fig., RODENDORF t.c.

Paraxymyia **gen. n.** p. 45 (Paraxymyiidae **fam. n.** p. 44), *quadriradialis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 46 figs., RODENDORF t.c.

Paritonida **gen. n.** p. 74, *brachyptera* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 75 fig., RODENDORF t.c.

Pleciofungivora major **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 58 fig., RODENDORF t.c.

Pleciofungivorella **gen. n.** p. 54, *binerva* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 55 fig., RODENDORF t.c.

Pleciofungivoridae **fam. n.** p. 51, RODENDORF t.c.

Pleciomimella **gen. n.**, *karatavica* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 71 fig., RODENDORF t.c.

Pleciomimidae **fam. n.** p. 61, RODENDORF t.c.

Plectomima secunda **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 70 fig., RODENDORF t.c.

Polyneurisca **gen. n.**, *atavina* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 52 fig., RODENDORF t.c.

Prohesperinus **gen. n.** p. 56, *abdominalis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 57 fig., RODENDORF t.c.

Protobibio **gen. n.** p. 47 (Protobibionidae **fam. n.** p. 46), *jurassicus* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 48 fig., RODENDORF t.c.

Protopleciidae **fam. n.** p. 42, RODENDORF t.c.

Protoscatopse **gen. n.** p. 49 (Protoscatopsidae **fam. n.** p. 48), *jurassica* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 50 figs., RODENDORF t.c.

Transversiplecta **gen. n.** p. 53, *transversinervis* **sp. n.** Jurassic, Kara-tau, S. Kazakstan p. 54 fig., RODENDORF t.c.

Hemiptera.

Durgades miocenica **sp. n.** Miocene, Tyan-Shan p. 762 fig., BEKKER-MIGDISOVA in BEKKER-MIGDISOVA & MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **78.**

Paraknightia magnifica from Homoptera (Ipsviciidae) to Heteroptera (Paraknightiidae) Permian p. 246 figs., EVANS Rec. Aust. Mus. **22** 1950.

Paraneoptera.

Mononeura **gen. n.**, *angustipennis* **sp. n.** Upper Permian, Kuznetzk, S.W. Siberia p. 1208 figs., BEKKER-MIGDISOVA C.R. Acad. Sci. URSS (N.S.) **78.**

Uninervidae **fam. n.** p. 1207, BEKKER-MIGDISOVA t.c.

Uninervus **gen. n.**, *zorapteroides* **sp. n.** Upper Permian, Kuznetzk, S.W. Siberia p. 1207 fig., BEKKER-MIGDISOVA t.c.

Miomoptera.

Tychtodelopterum **gen. n.**, *relictum* **sp. n.** Permian, Kuznetzk, S.W. Siberia p. 150, MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **79.**

Protoperlaria.

Euremisca **gen. n.**, *splendens* **sp. n.** Permian, R. Suilva, Urals p. 82 figs., ZALESSKIĬ C.R. Acad. Sci. URSS (N.S.) **81.**

Euremiscidae **fam. n.** p. 81, ZALESSKIĬ t.c.

Odonata.

Lithemis lejeune-carpentieri **sp. n.** Tertiary, Radoboj, Croatia p. 51 fig., FRASER Proc. R. ent. Soc. Lond. (B) **20.**

Oligocaemia imperfecta **sp. n.** Tertiary, Radoboj, Croatia p. 52 fig., FRASER t.c.

Protodonata.

Description of undetermined Protodonata, Carboniferous, Germany, GUTHÖRL Palaeont. Z. **22** 1941 p. 114 figs.

Archodonata.

Uralothemis **gen. n.**, *bellus* **sp. n.** R. Barda, Urals p. 270 figs., ZALESSKIĬ C.R. Acad. Sci. URSS (N.S.) **81.**

Orthoptera.

Bertrandiblatta **gen. n.**, *inexpectata* **sp. n.** Carboniferous, France p. 71 figs., LAURENTIAUX Ann. Paléont. **36** 1950.

Calcibacunculus **gen. n.**, *tenuis* **sp. n.** onyx-marble, Arizona p. 48 figs., PIERCE Bull. S. Calif. Acad. Sci. **50.**

Cebenniblatta **gen. n.**, *marcellini* **sp. n.** Carboniferous, France p. 72 fig., LAURENTIAUX Ann. Paléont. **36** 1950.

Hemimylacris stephanensis **sp. n.** Carboniferous, France p. 76 figs., LAURENTIAUX t.c.

Livetiblatta **gen. n.**, *incerta* **sp. n.** Carboniferous, France p. 74 fig., LAURENTIAUX t.c.

Orthomylacris mathieui **sp. n.** Carboniferous, France p. 78 figs., LAURENTIAUX t.c.

Phyloblatta grosjeani, *undata* p. 68, *bertrandi* p. 69 **spp. n.** Carboniferous, France figs., LAURENTIAUX t.c.

Platyblattina **gen. n.**, *maxima* (type) p. 73, *ampla* p. 74 **spp. n.** Carboniferous, France figs., LAURENTIAUX t.c.

Rhipidoblattina kisylkiensis **sp. n.** Liassic, Kirghiz, C. Asia p. 1010 fig., MARTUINOVA C.R. Acad. Sci. URSS (N.S.) **78.**

Syscioblatta corsini **sp. n.** Carboniferous, France p. 75 figs., LAURENTIAUX Ann. Paléont. **36** 1950.

Protorthoptera.

Carboniferous Cacurgidae, N. France, LAURENTIAUX Ann. Soc. géol. Nord **69** 1949 pp. 55–65, 1 pl. 3 figs.

Archimylabris pruvosti **sp. n.** Carboniferous, Limburg p. 16 figs., LAURENTIAUX Meded. geol. Stichting geol. Bur. Heerlen (N.S.) no. 4 1950.

Blattinopsis incerta **sp. n.** Carboniferous, France p. 66 figs., LAURENTIAUX Ann. Paléont. **36** 1950.

Limburgina **gen. n.**, *antiqua* **sp. n.** Carboniferous, Limburg p. 114 figs., LAURENTIAUX Meded. geol. Stichting geol. Bur. Heerlen (N.S.) no. 4 1950.

Tcholmanvissia uralica Barda and Vishera Rivers p. 1005, *dubia* Suilva River, Urals **spp. n.**; wing of undetermined sp. p. 1007 figs., ZALESSKIĬ C.R. Acad. Sci. URSS (N.S.) **78.**

Thysanura.

Thysanura in onyx-marble, Arizona, probably Eocene or even Miocene, PIERCE Bull. S. Calif. Acad Sci. **50** pp. 37–38.

Onychocampodea **gen. n.** (Campodeidae), *onychis* **sp. n.** onyx-marble, Arizona p. 48 figs., PIERCE Bull. S. Calif. Acad. Sci. **50.**

Onycholepisma **gen. n.** (Lepismatidae), *arizonae* **sp. n.** onyx-marble, Arizona p. 45 figs., PIERCE t.c.

Onychomachilis **gen. n.** (Machilidae), *fisheri* **sp. n.** onyx-marble, Arizona p. 45 figs., PIERCE t.c.

Plioprojapyx **gen. n.** (Projapygidae), *primitivus* **sp. n.** onyx-marble, Arizona p. 48 fig., PIERCE t.c.

Palaeodictyoptera.

Breyeriopsis **gen. n.** p. 47, *delruei* **sp. n.** Carboniferous, Pas de Calais p. 48 figs., LAURENTIAUX Ann. Soc. géol. Nord **69** 1949.

Climacoptera **gen. n.**, *antiqua* **sp. n.** Carboniferous, N. France p. 214 figs., LAURENTIAUX t.c.

Dictyoneurella **gen. n.**, *perfecta* **sp. n.** Carboniferous, N. France p. 207 figs., LAURENTIAUX t.c.

Hadroneuria heidei **sp. n.** Carboniferous, Limburg p. 17 figs., LAURENTIAUX Meded. geol. Stichting Geol. Bur. Heerlen (N.S.) no. 4 1950.

Jongmansia **gen. n.** for *Mecynoptera tuberculata* Bolton p. 18 figs., LAURENTIAUX t.c.

Jongmansiidae **fam. n.** p. 18, LAURENTIAUX t.c.

Macroptera **gen. n.**, *greberi* **sp. n.** Carboniferous, N. France p. 217 figs., LAURENTIAUX Ann. Soc. géol. Nord **69** 1949.

Mecynoptera tuberculata see *Jongmansia*.

ERRATA

Vol. lxii, 1925, p. 317, col. 1, transfer *Marietta* to ENCYRTIDAE

Vol. lxxiii, 1936, p. 282, col. 2, 9 lines from end, for " **10** " read " **6** "

Vol. lxxxiv, 1947, p. 264, col. 2, lines 4, 36, 47, and 50, & p. 265, col. 1, line 2, for " HELLER " read " UHMANN "

Vol. lxxxv, 1948, p. 232, col. 1, transfer *Chthoneis* and *Dicoelotrachelus* to GALERUCIDAE ; col. 2, transfer *Exochognathus* to EUMOLPIDAE, & *Glyptobregma* to HALTICIDAE

„ „ „ p. 306, col. 1, lines 12 and 22, for " *Mastigmus* " read " *Mastigimas* "

„ „ „ p. 308, col. 1, transfer *Fucellia* to MUSCIDAE

„ „ „ p. 311, col. 2, lines 38 and 39, for " *Mcatella* " read " *Mcateella* "

„ „ „ p. 323, col. 2, for " *Calitettix* " read " *Callitettix* "

„ „ „ p. 331, col. 2, 5 lines from end, & p. 332, col. 1, for " *Multicola* " read " *Mulcticola* "

„ „ „ p. 335, col. 1, after *Harrisiola* insert " **gen. n.**"

„ „ „ p. 341, col. 2, transfer *Platypygius* to ACRIDIDAE

„ „ „ p. 346, col. 2, for " *Microjapyx* " read " *Mixojapyx* "

„ „ „ p. 347, col. 1, for " *Plusia* " read " *Plusiocampa* "

ERRATA (*continued*)

Vol. lxxxvi, 1949, p. 218, col. 2, transfer *Malacogaster* to DRILIDAE

" " " p. 243, col. 2, & p. 244, col. 1, line 4, for " *Anopophrena* " read " *Anapophrena* "

" " " p. 245, col. 1, & col. 2, line 17, for " *Falsanandra* " read " *Falsonandra* "

" " " p. 247, col. 1, & p. 248, col. 2, line 1, for " *Pseudhippopsicon* " read " *Pseudohippopsicon* "

" " " p. 266, col. 2, for " *Phryacaces* " read " *Phyracaces* "

" " " p. 275, col. 1, for " *Choribidea* " read " *Chorebidea* "

" " " p. 294, col. 1, transfer *Celama* to NOLIDAE ; col. 2, for " *Holopodrina* " read " *Hoplodrina* "

" " " p. 295, col. 2, transfer *Roeselia* to NOLIDAE

" " " p. 305, col. 1, for " *Prorosa* " read " *Psorosa* "

" " " p. 327, col. 2, for " *Xenophora* " read " *Xenomorpha* "

" " " p. 340, col. 1, for " *Platysoma* " read " *Platystoma* "

" " " p. 344, col. 2, for " *Tarisca* " read " *Tarisa* "

" " " p. 345, col. 2, transfer *Leptocoris* to COREIDAE

" " " p. 346, col. 1, for " *Dulinus* " read " *Dulinius* "

" " " p. 353, col. 2, line 4, after p. 721 insert " Venezuela "

" " " p. 369, col. 2, for " *Symphiothrips* " read " *Symphyothrips* "

" " " p. 374, col. 2, for " *Deinopsocus* " read " *Deipnopsocus* ", & for " *Ectoposcus* " read " *Ectopsocus* "

" " " p. 377, col. 2, lines 30 and 38, for " *Croconeuria* " read " *Croceneuria* "

" " " p. 382, col. 1, for " *Karschigomphus* " read " *Karschiogomphus* "

Vol. lxxxvii, 1950, p. 42, No. **671**, for " **Curtis**, C. L." read " **Sabrosky**, C. W.", & p. 163, col. 1, line 8, & p. 185, col. 2, line 16, for " CURTIS " read " SABROSKY "

" " " p. 66, No. **1176**, for " **Hagen** " read " **Hagan** "

" " " p. 77, No. **1388**, for " 1ère–3ème parties " read " 1ère & 3ème parties "

" " " p. 156, No. **3032**, & p. 214, col. 2, line 5, entry after **32** should read " pp. 1–224 (1948) 1950, 225–416 (1948) 1951, illus."

" " " p. 221, col. 1, 10 lines from end, for " Rev. Zool. Bot. afr. **43**." read " t.c."

" " " p. 242, col. 1, for " *Villersium* " read " *Villiersium* "

" " " p. 247, col. 2, for " *Scobica* " read " *Scobicia* "

" " " p. 252, col. 1, for " *Teleclerus* " read " *Teloclerus* "